

OWNER'S GUIDE

• ASSEMBLY • OPERATION • MAINTENANCE • PARTS •



VARIABLE SPEED REAR ENGINE RIDING MOWERS

Model Numbers

132-510-000 132-530-000
132-511-000 132-531-000
132-520-000 132-550-000
132-521-000 132-551-000

IMPORTANT!

Record the **Model No.** and **Mfg. Code** which appear on your unit in the space below. You **must** have these numbers, along with the date of purchase, in order to receive warranty or service.

MEETS ANSI SAFETY STANDARDS

MODEL NO.

MFG. CODE

**Important:
Read Safety Rules
and Instructions Carefully**



Made
in
AMERICA

WARNING: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 360900, Cleveland, Ohio 44136.

INDEX

Slope Gauge	3	Lubrication	16
Contents of Hardware Pack	4	Maintenance	17
Rules for Safe Operation Practices	5	Off-Season Storage	19
Assembly Instructions	6	Trouble Shooting Guide	20, 21
Controls	11	Electrical System	22
Operation	13	Illustrated Parts for Riding Mower	23-31
Adjustments	14	Illustrated Parts for Transaxle	32-35

OPTIONAL ACCESSORIES AVAILABLE

The following **grass catchers** are available as optional equipment for the riding mowers shown in this manual.

Model 190-038 for 30" Rear Discharge Deck

Model 190-073 for 30", 32" & 38" Side Discharge Deck (Model 190-063 with 190-435 mounting kit can also be used)



WARNING: The mower should not be operated without the entire grass catcher or chute deflector in place.

NOTE: Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement.

A **30" Mulching Kit** Model 190-093 is available as optional equipment for 30" side discharge deck.

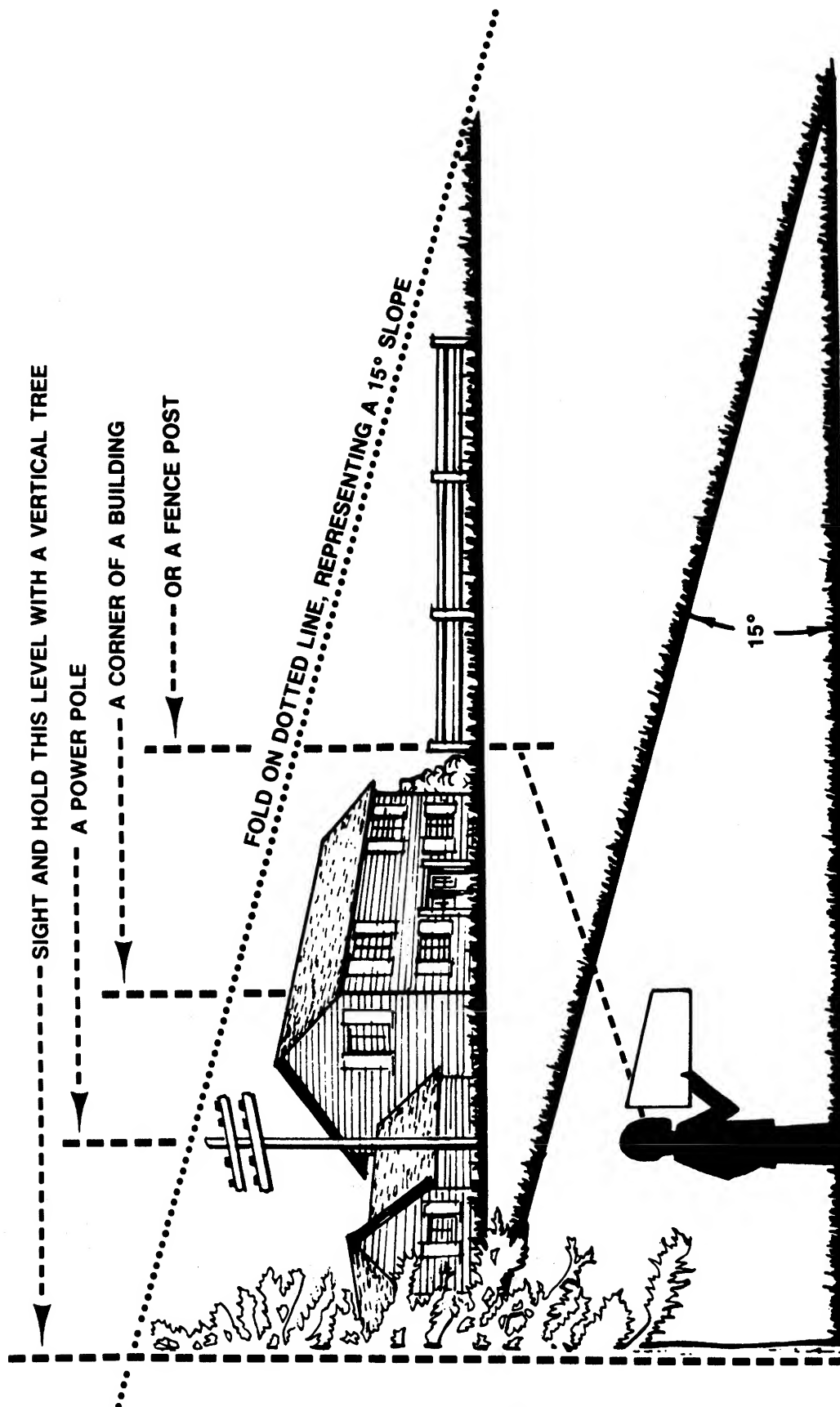
A **38" Mulching Kit** Model 190-096 is available as optional equipment for 38" side discharge deck.

Cut Along This Line

USE THIS SHEET AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.

SLOPE GAUGE

(Keep this sheet in a safe place for future reference.)



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

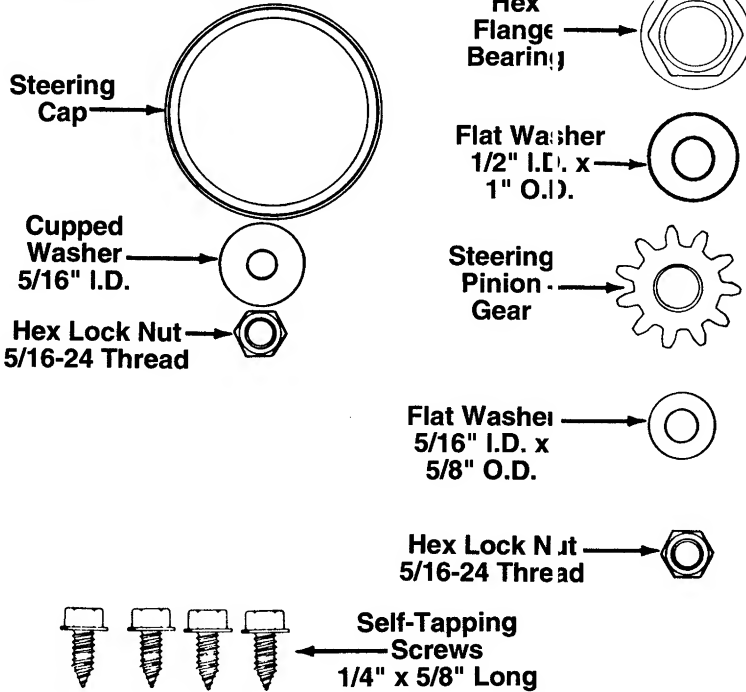
Operate RIDING mowers up and down slopes, never across the face of slopes.
Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

CONTENTS OF HARDWARE PACK

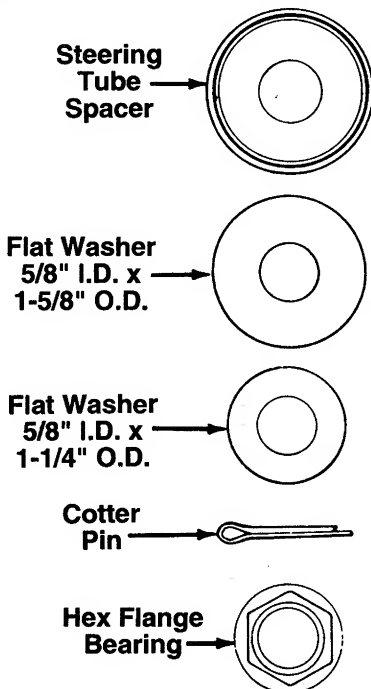
Remove this sheet from your owner's manual and separate the hardware according to the illustration for identification purposes. Parts are illustrated approximately half size. After assembly, keep the Slope Gauge which is on the reverse side of this sheet for future use.

(Hardware pack may contain extra items which are not used on your unit.)

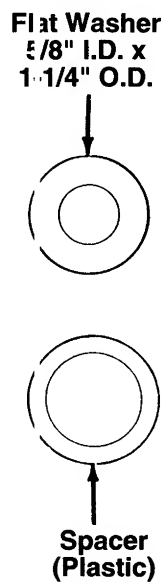
A ATTACHING THE STEERING MECHANISM



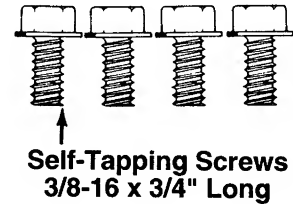
Models 510, 520, 530 & 550



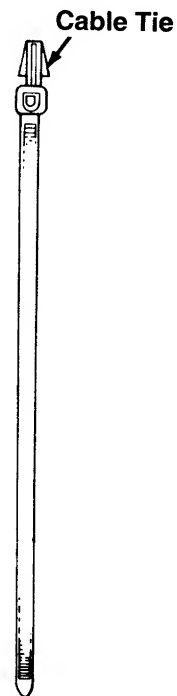
Models 511, 521, 531 & 551



B ATTACHING THE SEAT

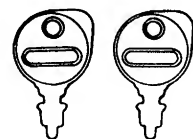


C INSTALLING THE BATTERY



D IGNITION KEYS


(May Be Attached To Tractor)



IMPORTANT

SAFE OPERATION PRACTICES



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR UNIT. WHEN YOU SEE THIS SYMBOL—  **HEED ITS WARNING.**



DANGER: This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

I. GENERAL OPERATION

1. Read, understand, and follow all instructions in the manual and on the machine before starting. Keep this manual in a safe place for future reference and for ordering replacement parts.
2. Only allow responsible adults familiar with the instructions to operate the machine. Know controls and how to stop the machine quickly.
3. Do not put hands or feet under cutting deck or near rotating parts.
4. Clear the area of objects such as rocks, toys, wire, etc. which could be picked up and thrown by the blade. A small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects. Stop the blade(s) when crossing gravel drives, walks or roads.
5. Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
6. Never carry passengers.
7. Disengage blade(s) before shifting into reverse and backing up. Always look down and behind before and while backing.
8. Be aware of the mower and attachment discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the chute guard in place.
9. Slow down before turning. Operate the tractor smoothly. Avoid erratic operation and excessive speed.
10. Never leave a running machine unattended. Always turn off blade(s), place transmission in neutral, set park brake, stop engine and remove key before dismounting.
11. Turn off blade(s) when not mowing.
12. Stop engine and wait until blade(s) comes to a complete stop before (a) removing grass catcher or unclogging chute, or (b) making any repairs, adjusting or removing any grass or debris.
13. Mow only in daylight or good artificial light.
14. Do not operate the machine while under the influence of alcohol or drugs.
15. Watch for traffic when operating near or crossing roadways.
16. Use extra care when loading or unloading the machine into a trailer or truck. This unit should not be driven up or down a ramp onto a trailer or truck under power, because the unit could tip over, causing serious personal injury. The unit must be pushed manually to load or unload properly.
17. Never make a cutting height adjustment while engine is running if operator must dismount to do so.
18. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
19. Check overhead clearance carefully before driving under power lines, wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where the operator may be struck or pulled from the unit, which could result in serious injury.
20. Disengage all attachment clutches, thoroughly depress the brake pedal, and shift into neutral before attempting to start engine.

II. SLOPE OPERATION

Slopes are a major factor related to loss of control and tip-over accidents which can result in severe injury or death. **All** slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

DO:

Mow up and down slopes, not across.

Remove obstacles such as rocks, limbs, etc.

Watch for holes, ruts or bumps. Uneven terrain could overturn the machine. **Tall grass can hide obstacles.**

Use slow speed. Choose a low enough gear so that you will not have to stop or shift while on the slope. Always keep tractor in gear when going down slopes to take advantage of engine braking action.

Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.

Use extra care with grass catchers or other attachments. These can change the stability of the machine.

Keep all movement on the slopes **slow** and **gradual**. Do not make sudden changes in speed or direction. Rapid engagement or braking could cause the front of the machine to lift and rapidly flip over backwards which could cause serious injury.

Avoid starting or stopping on a slope. If tires lose traction, disengage the blade(s) and proceed slowly **straight** down the slope.

For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.

DO NOT:

Do not turn on slopes unless necessary; then, turn slowly and gradually downhill, if possible.

Do not mow near drop-offs, ditches or embankments. A wheel over the edge or an edge caving in could cause sudden overturn.

Do not mow on wet grass. Reduced traction could cause sliding.

Do not try to stabilize the machine by putting your foot on the ground.

Do not use grass catcher on steep slopes.

III. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. **Never** assume that children will remain where you last saw them.

1. Keep children out of the mowing area and in watchful care of an adult other than the operator.

2. Be alert and turn machine off if children enter the area.

3. Before and when backing, look behind and **down** for small children.

4. Never carry children. They may fall off and be seriously injured or interfere with the safe machine operation.

5. Never allow children under 14 years old to operate the machine. Children 14 years and over should only operate machine under close parental supervision and proper instruction.

6. Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure vision.

IV. SERVICE

1. Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
 - a. Use only an approved container.
 - b. Never remove gas cap or add fuel with the engine running. Allow engine to cool at least two minutes before refueling. Do not smoke.
 - c. Never refuel the machine indoors.
 - d. Never store the machine or fuel container inside where there is an open flame, or spark, such as a water heater, space heater, clothes dryer and the like.
2. Never run a machine inside a closed area.
3. Check frequently and keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in safe working condition.
4. Never tamper with safety devices. Check their proper operation regularly. Use all guards as instructed in this manual.
5. To reduce fire hazard, keep machine free of grass, leaves or

other debris build-up. Clean up oil or fuel spillage. Allow machine to cool before storing.

6. Stop and inspect the equipment for damage if you strike an object. Repair, if necessary, before re-starting and operating the machine.
7. Never make adjustments or repairs with the engine running.
8. Grass catcher components are subject to wear, damage and deteriorate, which could expose moving parts or allow objects to be thrown. Frequently, check components and replace with manufacturer's recommended parts when necessary.
9. Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves and use extra caution when servicing blade(s).
10. Check brake operation frequently. Adjust and service as required.
11. Muffler, engine, and belt guards become hot during operation and can cause a burn. Allow to cool down before touching.
12. Do not change the engine governor settings or overspeed the engine.



DANGER: Your unit was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.

ASSEMBLY INSTRUCTIONS

IMPORTANT: This unit is shipped WITHOUT GASOLINE or OIL; however, a small amount of oil may be present from the factory. Do not overfill. After assembly, service engine with gasoline and oil as instructed in the separate engine manual packed with your unit.

NOTE: Reference to right or left hand side of the unit is observed from the driver's seat, facing forward.

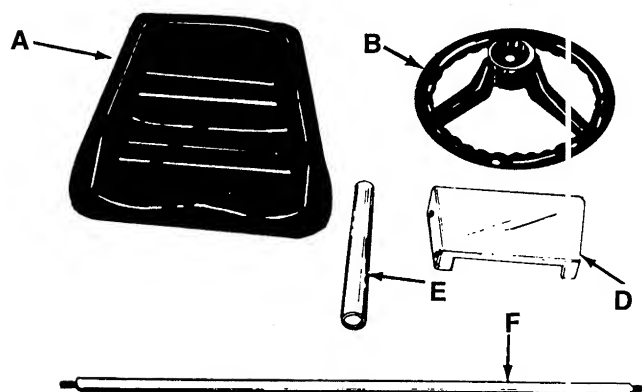


FIGURE 1.

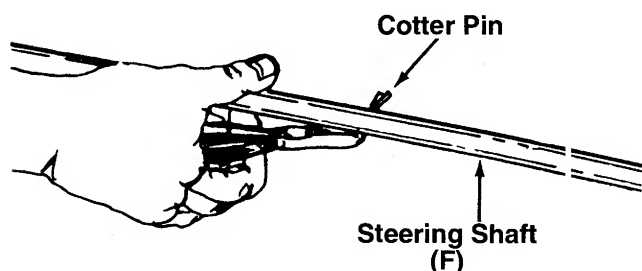


FIGURE 2.—Models 510, 520, 530 and 550

This owner's manual covers various models of lawn tractors. The units illustrated may vary slightly from your unit. Follow only those instructions which pertain to your model riding mower. Refer to the separate deck manual for all information concerning the deck.

UNPACKING

1. Remove the riding mower from the carton as follows. Open the top flaps. Remove all loose parts and carton inserts. Cut the front corners of the carton. Make certain brake is released, and push the unit out of the carton.
2. Remove page four from this manual and separate the contents of the hardware pack according to the illustration for identification.

Loose Parts in Carton: (See Figure 1)

- A (1) Seat
- B (1) Steering Wheel
- D (1) Steering Gear Cover
- E (1) Steering Tube—Chrome (Models 510, 520, 530 & 550)
- F (1) Steering Shaft (Models 510, 520, 530 & 550)
- G (1) Steering Shaft Assembly (Models 511, 521, 531 & 551)—Not Shown

ATTACHING THE STEERING MECHANISM (Hardware A)



WARNING: Follow instructions carefully as improper adjustment of the steering mechanism will cause excessive wear on the steering gear segment and will void your warranty.

NOTE: Steps 1 through 6 are for Models 510, 520, 530 and 550 only. For Models 511, 521, 531 & 551, proceed with step 6.

Models 510, 520, 530 and 550 only:

1. Insert the cotter pin into the hole on steering shaft (F). Secure in place by bending the ends of the cotter pin in opposite directions. See figure 2.

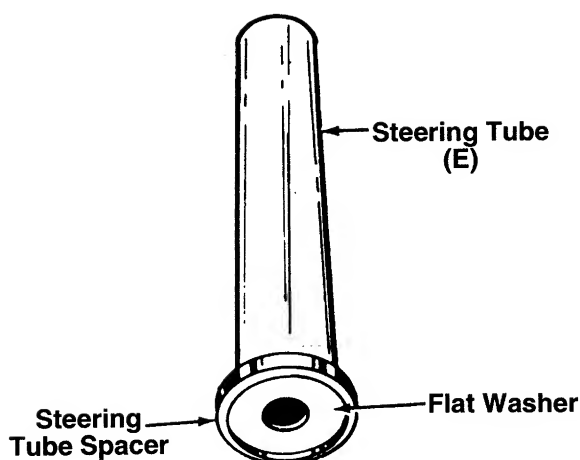


FIGURE 3.—Models 510, 520, 530 and 550

2. Press the large **flat washer** (1-5/8" diameter) into the open side of the black plastic **steering tube spacer**. See figure 3.
3. Press the **steering tube spacer** into one end of the chrome-plated **steering tube (E)**. Make certain spacer is seated securely into tube.

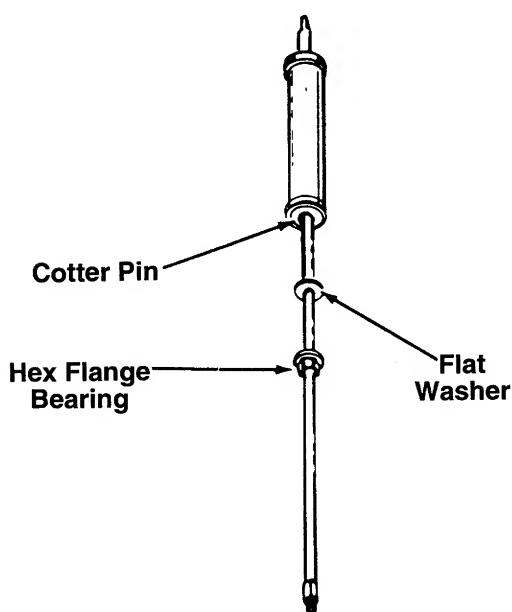


FIGURE 4.—Models 510, 520, 530 and 550

4. Hold the **steering shaft** upright, so that the **cotter pin** is closer to the top of the shaft. Slide the **steering tube spacer** and **steering tube** down over the **shaft** (above the cotter pin). See figure 4.

5. Slip **flat washer** (1-1/4" diameter) on the **steering shaft** immediately below the cotter pin. Place one plastic **hex flange bearing** flat side up, below the washer.
6. **Models 510, 520, 530 and 550:** Insert the **steering shaft** with assembled parts through the **steering housing cover**. The lower end of the shaft should extend through the hole in the front end of the **steering gear adjuster** (Ref. No. 75 on page 28). See figure 5.

Models 511, 521, 531 and 551: Insert the steering shaft through the **steering housing cover**. Place **flat washer** and **plastic spacer** over end of **steering shaft** before inserting the shaft through the hole in the front end of the **steering gear adjuster** (Ref. No. 75 on page 28).

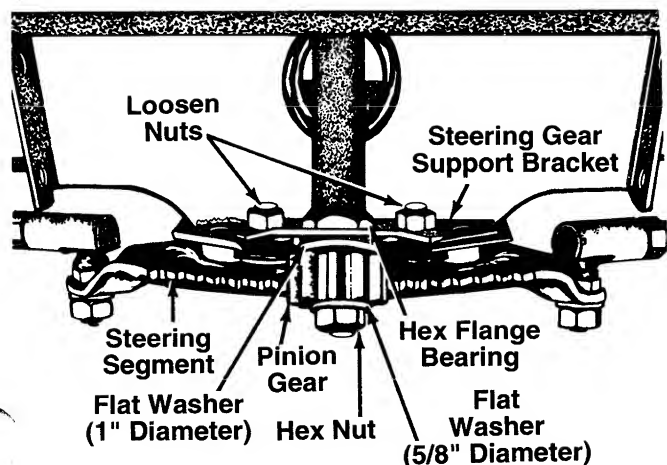


FIGURE 5.

7. Loosen the **hex nuts** located at the **rear of the steering gear** adjuster so that the steering gear adjuster can be pulled about 1/4" toward the front of the rider, to permit easier assembly of the **pinion gear**. One 9/16" wrench is required.
8. Place **hex flange bearing**, flat side down, over the end of the steering shaft, and seat it into the steering gear adjuster. See figure 5.
9. Place **flat washer** (1" diameter) over end of **steering shaft** and raise **steering shaft** slightly so **pinion gear** can be placed in position (teeth of gear must mesh with teeth of steering gear segment). Insert steering shaft through pinion gear (splined collar on steering shaft is inside of pinion gear). Then place **flat washer** (5/8" diameter) on shaft and secure with **hex nut** (5/16" I.D.). Do not tighten at this time.

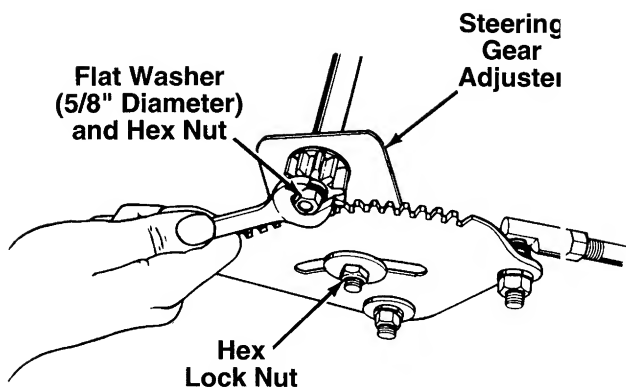


FIGURE 6.

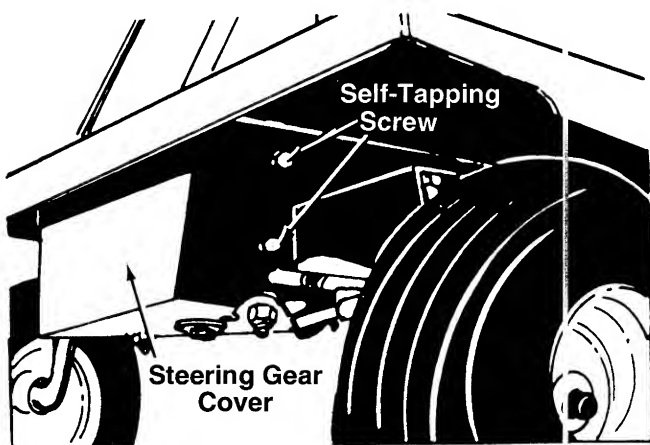


FIGURE 7.

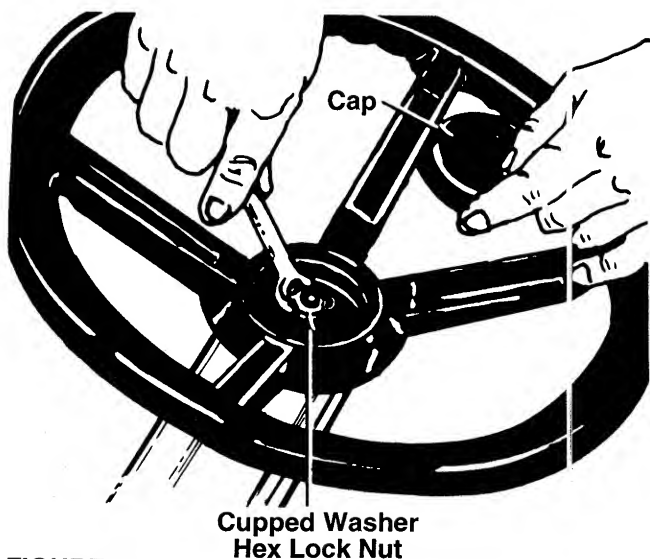


FIGURE 8.

10. Push the **steering gear adjuster** (loosened in step 7) forward toward its original position, until the pinion gear **engages solidly into the teeth of the steering gear segment**. Retighten the nuts at the rear of the steering gear adjuster. One 9/16" wrench is required.



WARNING: Steering gear must be adjusted as instructed in step 10, and hex lock nut must be adjusted as instructed in step 12. Improper adjustment will cause excessive wear on the steering gear segment.

11. Now tighten the hex nut which secures the pinion gear. See figure 6.
12. Make certain the hex lock nut which secures the steering segment to the steering gear support bracket (shown in figure 6) is tightened so there is no play between the two parts. Do not overtighten as the steering segment must be free to turn.
13. Lubricate the teeth of the pinion gear and steering gear segment with an automotive chassis grease.
14. Install the **steering gear cover** (D) as shown in figure 7, to cover the underside of the steering mechanism. Secure with two **self-tapping screws** on each side of the cover. Do not completely tighten any of these screws until all four of them are positioned correctly.

15. Position the front wheels of the riding mower so they are pointing straight forward.
16. Place **steering wheel** (B) in position desired. Make certain the steering wheel is seated over the end of the steering tube.
17. Place the **cupped washer** with the cupped side down over the **steering shaft**. Secure with 5/16" **hex lock nut**. See figure 8.
18. Place the **steering wheel cap** over the center of the **steering wheel** and seat it with your hand.

ATTACHING THE CHUTE DEFLECTOR

If your unit has been shipped without the chute deflector assembled, follow the instructions in the separate deck manual packed with your unit.



WARNING: Do not operate your unit unless the chute deflector has been properly installed.

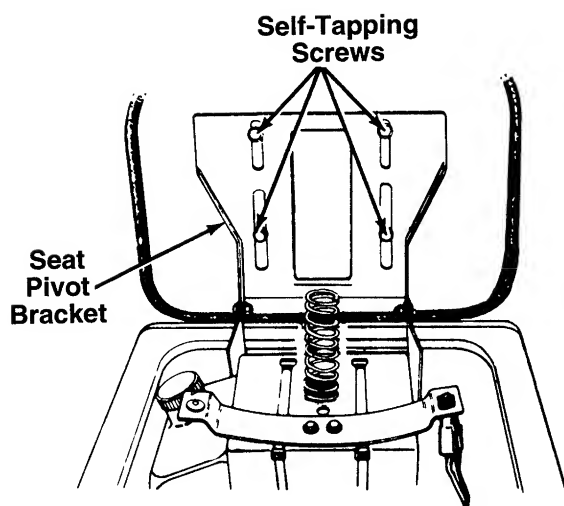


FIGURE 9.

ATTACHING THE SEAT (Hardware B)

The slots in the seat pivot bracket allow the seat to be adjusted to different positions. Place the seat against the seat pivot bracket in the position desired, and ← secure with four self-tapping screws. See figure 9.

TIRE PRESSURE

The tires on your unit may be over-inflated for shipping purposes. Reduce the tire pressure before operating the unit. Recommend operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure).



WARNING: Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

BATTERY INFORMATION



WARNING

- A. Battery acid must be handled with great care as contact with it can burn and blister the skin. It is also advisable to wear protective clothing (goggles, rubber gloves and apron) when working with it.*
- B. Should battery acid accidentally splatter into the eyes or onto the face, rinse the affected area immediately with clean cold water. If there is any further discomfort, seek prompt medical attention.
- C. If acid spills on clothing, first dilute it with clean water, then neutralize with a solution of ammonia/water or baking soda/water.

D. Since battery acid is corrosive, do not pour it into any sink or drain. Before discarding empty electrolyte containers, rinse them with a neutralizing solution.

E. NEVER connect or disconnect charger clips to battery while charger is turned on as it can cause sparks.

F. Keep all lighted materials (cigarettes, matches, lighters) away from the battery as the hydrogen gas generated during charging can be combustible.

G. As a further precaution, only charge the battery in a well-ventilated area.

*Always shield eyes, protect skin and clothing when working near batteries.

ACTIVATING THE BATTERY

Do not activate battery (fill with battery acid) until battery is actually placed in service. Be certain to read previous warnings before activating the battery.

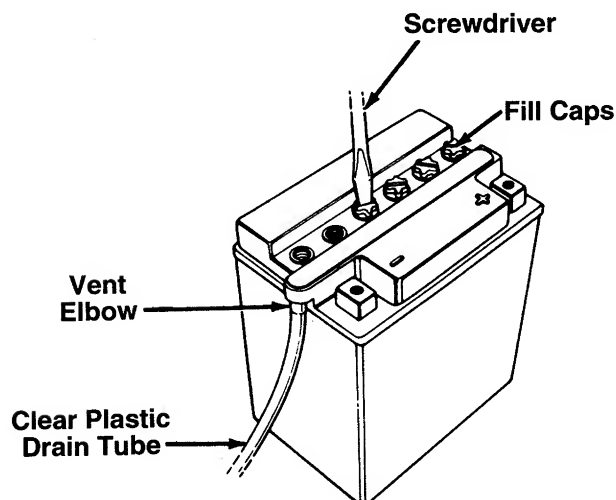


FIGURE 10.

1. Remove the battery from the lawn tractor by removing two wing nuts and the battery cover.

2. Open the battery pack. Be careful not to puncture the box. It contains the battery fluid (acid) in a plastic container and one short plastic tube.

3. Place the battery on a table or workbench. Make certain the long plastic drain tube is in place on the vent elbow.

4. Remove the six fill caps from the top of the battery with a screwdriver. Be careful not to damage the fill caps. See figure 10. ←

5. Place the battery fluid container on the table or workbench. Carefully cut off tip of the spout and attach the short plastic tube provided. Do not squeeze the container when cutting tip.

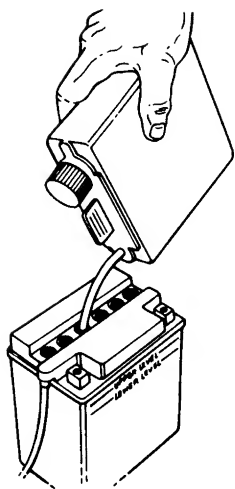


FIGURE 11.



DANGER

Battery contains sulfuric acid. Refer to warning on page 9. Antidote: EXTERNAL—Flush with water. INTERNAL—Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Seek prompt medical attention. EYES: Flush with cool water for at least 15 minutes, then seek immediate medical attention.

Since batteries produce explosive gases, keep all lighted materials (cigarettes, lighters, matches, etc.) away. Be sure to charge battery only in well-ventilated areas. Make certain venting path of battery (drain tube) is always open.

**KEEP BATTERIES
OUT OF THE REACH OF CHILDREN!**

6. Fill each battery cell slowly and carefully to the UPPER LEVEL line marked on battery. See figure 11. Use caution as the acid level will rise rapidly after the bottom of the cell is filled.
7. Allow battery to stand for 30 minutes with the fill caps removed, while the plates absorb acid.
8. If acid level has fallen after the 30 minute standing period, refill each cell with battery acid to the UPPER LEVEL line on battery. Replace the fill caps.
9. Before discarding the empty container, neutralize any residue with baking soda and rinse container with water. Puncture container several times before discarding.
10. Charge the battery after the 30 minute standing period. SLOW CHARGE THE BATTERY (DO NOT FAST CHARGE) at a maximum bench rate of 1.4 amperes until the specific gravity reading is 1.260-1.280. Charge for a minimum of 2 hours and a maximum of 8 hours.

NOTE: This engine is equipped with an alternator. The current for the battery charger alternator is unregulated. During normal operation, it is only necessary to charge the battery:

1. When it is activated for the first time.
2. Before winter storage.
3. Before using the lawn tractor after winter storage.

NOTE: Charging rate after battery has been put into operation: The battery is to be charged for a period of 14-16 hours, NO LONGER THAN 30 HOURS.

After battery has been charged, add only distilled water. Do not add acid.

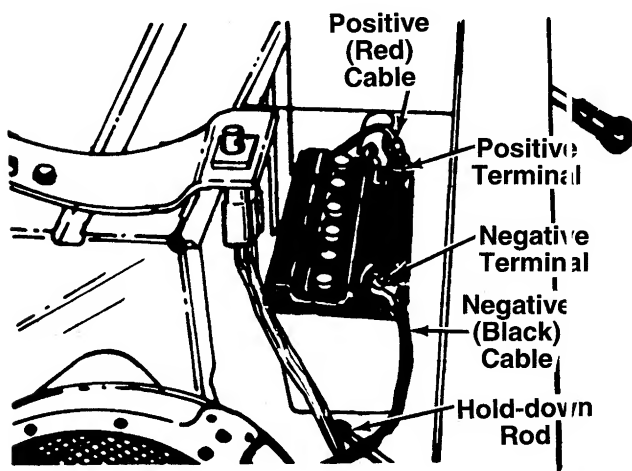


FIGURE 12.

INSTALLING THE BATTERY (Hardware C)

1. Place the battery in the lawn tractor with the positive terminal to the front. The negative terminal goes to the rear of the unit. See figure 12.
2. Remove the hardware from the positive terminal. Place the positive (red) cable and the small red wire with the in-line fuse on the positive terminal. Secure with bolt, nut and lock washer just removed.
3. Remove the hardware from the negative terminal. Place the negative (black) cable on the negative terminal. Secure with bolt, nut and lock washer just removed.

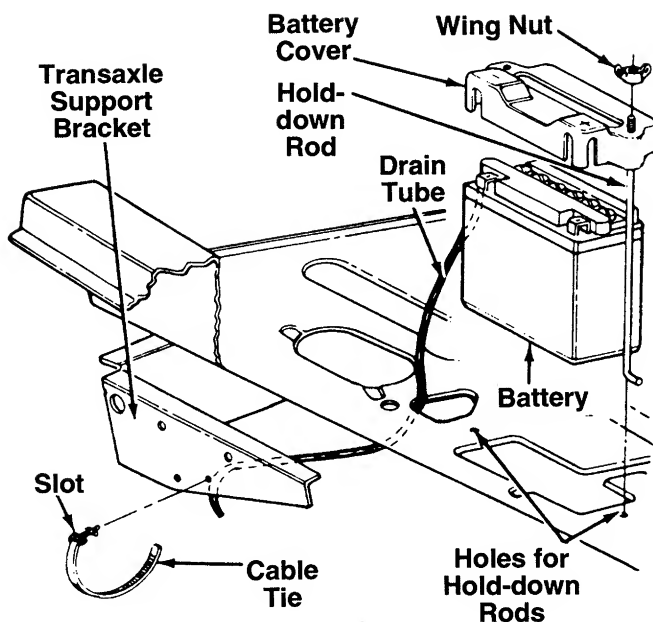


FIGURE 13.

4. Secure the battery in place with battery cover and hold-down rods. Secure with two wing nuts. See figure 13.
5. Route the clear plastic drain tube down through the hole in the frame, next to the engine drain plug, shown in figure 13.
6. Push the locking end of cable tie through the hole in transaxle support bracket. Place the end of cable tie through the slot so a loop is formed around the drain tube to secure it. Tighten cable tie and cut off excess end.

CONTROLS

This manual should be read in its entirety before operating the riding mower. **Be certain to service the engine with gasoline and oil as instructed in the separate engine manual before starting the engine.** Study the operating instructions and safety precautions thoroughly to insure proper functioning of your mower and to prevent injury to yourself and others. Be sure to save this manual for future reference.

THROTTLE CONTROL

The throttle control is used to regulate the engine speed. The engine should be operated at full throttle when operating the cutting deck. See figure 14.

CHOKE CONTROL

The choke control is located on the console and is operated manually. Details for the choke operation are covered in the separate engine manual packed with your unit. See figure 14.

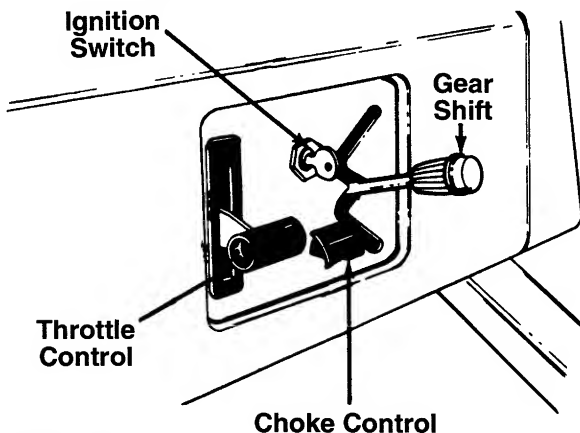


FIGURE 14.

IGNITION KEY

The key must be turned to the START position to start the engine. After the engine is running, let the key return to the ON position. Turn the key to the OFF position to stop the engine. Remove the key when the rider is not in use. See figure 14.

SHIFT LEVER

The shift lever is located on the left hand side of the console and has three positions, FORWARD, NEUTRAL and REVERSE. See figure 14. The clutch-brake pedal must be depressed and the riding mower must not be moving when shifting gears. Do not force the shift lever. Release the clutch-brake pedal slightly to line up the shifting collar in the transmission. Then try to shift gears.

SPEED CONTROL LEVER

The speed control lever allows you to regulate the ground speed of the riding mower to one of six settings. See figure 15. To set, depress clutch pedal. Push speed control lever outward and move backward to slow rider, move forward to increase speed. When desired speed has been obtained, place lever in that position. Whenever clutch is engaged, rider will automatically go to the pre-set speed.

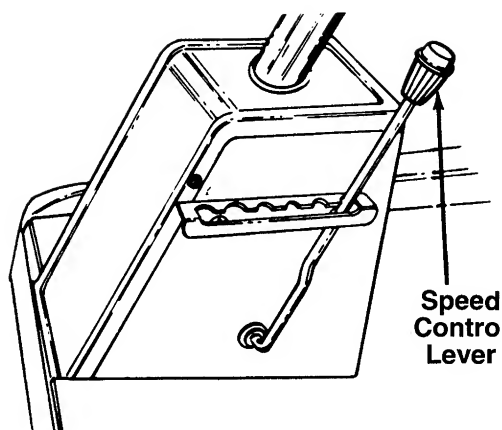


FIGURE 15.—Models 510, 520, 530 and 550 Shown

CLUTCH-BRAKE PEDAL

The clutch-brake pedal is located on the right side of the rider. Depressing the clutch-brake pedal part way disengages the clutch. Pressing the pedal all the way down disengages the clutch and engages the disc brake. See figure 16.

NOTE: The clutch-brake pedal must be depressed to start the engine. Parking brake must be engaged if operator leaves the seat with the engine running.

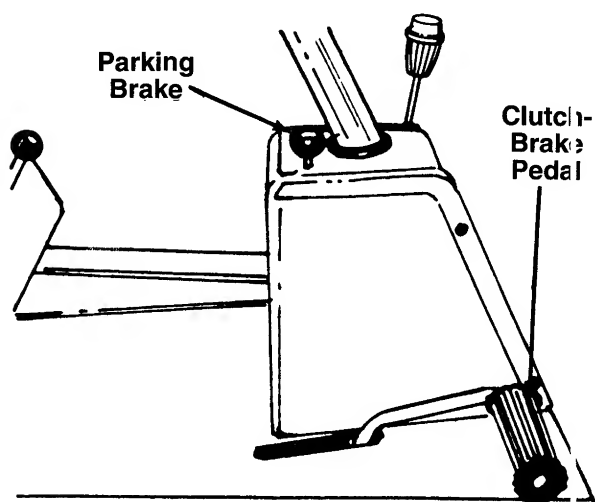


FIGURE 16.—Models 510, 520, 530 and 550 Shown

PARKING BRAKE

To set the parking brake, depress the clutch-brake pedal and press the parking brake knob down. To release the parking brake, depress and release the clutch-brake pedal. See figure 16.

BLADE ENGAGEMENT LEVER

The blade engagement lever is located on the right hand side of the deck. Figure 17 shows the blade engagement lever in the disengaged position.

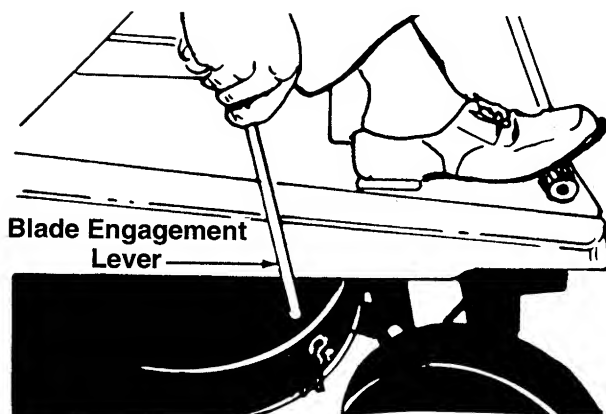


FIGURE 17.

To engage the blade, move the blade engagement lever toward the front of the unit. Move the lever toward the rear to disengage the blade.

DECK CUTTING HEIGHT LEVER

The deck cutting height lever is used to raise and lower the cutting deck, which sets the cutting height. Move the lever outward, select desired cutting height and release lever. The lever may be set in any one of the six cutting height positions. See figure 18.



WARNING: The blade does not shut off when the deck is raised. You must place the Blade Engagement Lever in the disengaged (OFF) position.

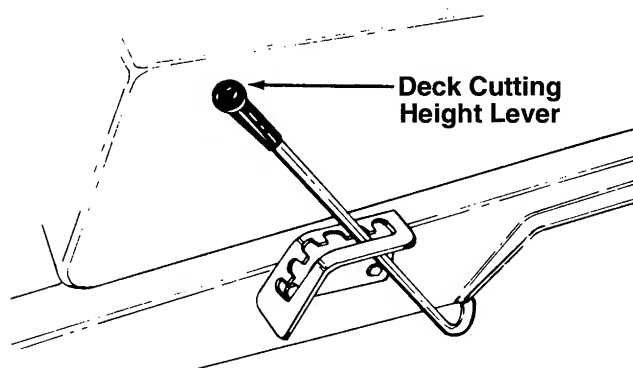


FIGURE 18.

SAFETY INTERLOCK SYSTEM

Interlock safety switches are located on the clutch-brake pedal, the blade engagement lever, shift lever and the seat.

Before the engine will start or if the operator leaves the seat, the clutch-brake pedal must be depressed all the way (parking brake engaged), and the blade engagement lever must be in the disengaged position.

In addition, the blade engagement lever must be in the disengaged position before the unit can be shifted into reverse.

OPERATION



WARNING

AVOID SERIOUS INJURY OR DEATH

- GO UP AND DOWN SLOPES, NOT ACROSS. • AVOID SUDDEN TURNS.
- DO NOT OPERATE THE UNIT WHERE IT COULD SLIP OR TIP.
- IF MACHINE STOPS GOING UPHILL, STOP BLADE(S) AND BACK DOWNHILL SLOWLY.
- DO NOT MOW WHEN CHILDREN OR OTHERS ARE AROUND.
- NEVER CARRY CHILDREN.
- LOOK DOWN AND BEHIND BEFORE AND WHILE BACKING.
- KEEP SAFETY DEVICES (GUARDS, SHIELDS, AND SWITCHES) IN PLACE AND WORKING.
- REMOVE OBJECTS THAT COULD BE THROWN BY THE BLADE(S).
- KNOW LOCATION AND FUNCTION OF ALL CONTROLS.
- BE SURE BLADE(S) AND ENGINE ARE STOPPED BEFORE PLACING HANDS OR FEET NEAR BLADE(S).
- BEFORE LEAVING OPERATOR'S POSITION, DISENGAGE BLADE(S), PLACE THE SHIFT LEVER IN NEUTRAL, ENGAGE BRAKE LOCK, SHUT ENGINE OFF AND REMOVE KEY.

READ OPERATOR'S MANUAL

IMPORTANT: This unit is equipped with a **safety interlock system** for your protection. The purpose of the safety interlock system is to prevent the engine from cranking or starting unless the clutch-brake pedal is depressed and the blade engagement lever is in the disengaged position. In addition, the blade engagement lever must be in the disengaged position when the unit is put into reverse or the engine will shut off. If the operator leaves the seat with the blade engagement lever engaged and/or without setting the parking brake, the engine will shut off.



WARNING: Do not operate the rider if the interlock system is malfunctioning because it is a safety device, designed for protection.

GAS AND OIL FILL-UP

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your rider. Read instructions carefully.

NOTE: Your rider is shipped without oil; however, a small amount of oil may be present from the factory. Do not overfill.



WARNING: Never fill fuel tank indoors, with engine running or while engine is hot.

STARTING THE ENGINE



WARNING: Get on and off the unit from the left hand side to avoid possible contact with the blade engagement lever (located on the right hand side).

1. Attach the wire to the spark plug.
2. Depress the clutch-brake pedal and lock it down.

3. Move the blade engagement lever back to the disengaged position.
4. Set throttle control in the FAST position. Pull out the choke control.

NOTE: A warm engine may not require choking.

5. Place the shift lever in the NEUTRAL position.
6. Turn the ignition key to the START position. As soon as the engine starts, let the key return to the ON position. See figure 14.
7. Push choke knob in gradually. Move throttle control to desired engine speed.
8. To stop, turn the ignition key to the OFF position. Remove the key when the rider is not in use.

PUTTING THE RIDING MOWER IN MOTION

NOTE: Parking brake must be disengaged before unit is put into motion.

1. Advance the throttle control to full throttle to prevent strain on the engine and to operate the cutting blades.
2. Place the shift lever in either the FORWARD or REVERSE position.



WARNING: Look to the rear before backing up.

3. Slowly release the clutch-brake pedal.
4. To stop, depress the clutch-brake pedal.

NOTE: When operating the unit initially, there will be little difference between the highest two speeds until after the belts have seated themselves into the pulleys during the break-in period.

5. The blades can be engaged either while moving or while standing still. Move the blade engagement lever forward slowly until the blades are turning.



WARNING: When the blades are engaged, keep feet and hands away from the discharge opening, the blades or any part of the deck.

STOPPING

Engine—Turn the ignition key to the left to the OFF position.

Rider—Depress the clutch-brake pedal.

Blades—Pull the blade engagement lever all the way back.

Be sure that the lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. For best results and to insure more even grass distribution, do not mow when lawn is excessively wet.



WARNING: Before leaving the operator's position for any reason, disengage the blades, place the shift lever in neutral, engage the parking brake, shut engine off and remove the key.

When stopping the unit to empty a grass bag, e.c., follow the instructions above. This procedure will also eliminate "browning" the grass, which is caused by hot exhaust gases from a running engine.

IMPORTANT: If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

NOTE: If any problems are encountered, refer to the Trouble Shooting Guides on pages 20 and 21.

If unit stalls with speed control in high speed, or if unit will not operate with speed control lever in a low speed position, proceed as follows.

1. Place shift lever in Neutral.
2. Restart engine.
3. Place speed control lever in high speed position.
4. Release clutch-brake pedal fully.
5. Depress clutch-brake pedal.
6. Place speed control lever in desired position.
7. Place shift lever in either Forward or Reverse, and follow normal operating procedures.

ADJUSTMENTS



WARNING: Do not at any time make any adjustment to riding mower without first stopping engine and disconnecting spark plug wire.

THROTTLE CONTROL

If adjustment is needed, refer to the separate engine manual packed with your unit.

SPEED CONTROL LEVER ADJUSTMENT

NOTE: When operating the unit initially or after replacing the belts, there will be little difference between the highest two speeds until after the belts have gone through a break-in period and have seated themselves into the pulleys.

If the full range of speeds cannot be obtained on your unit, adjust the speed control lever as follows.

1. Start the engine.
2. Place the shift lever in Neutral position.
3. Place the speed control lever in high speed position.
4. Release the clutch-brake pedal completely, then slowly depress the pedal all the way (to park position). Hold the pedal in this position.
5. Turn the engine off.
6. After engine stops completely, release the clutch-brake pedal.
7. Disconnect the speed control rod by removing the hairpin cotter and flat washer. See figure 19.

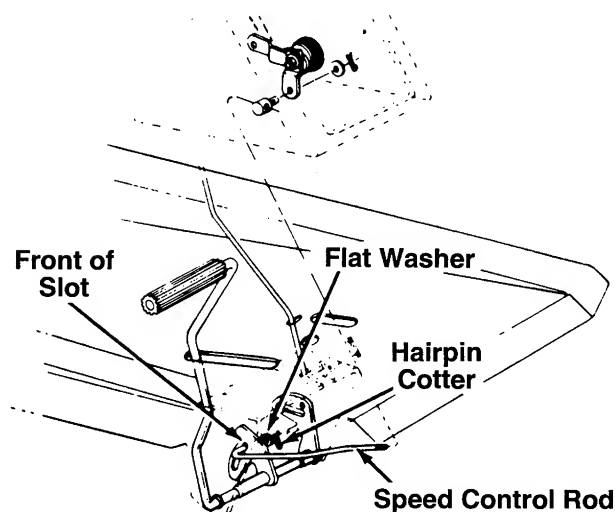


FIGURE 19.

8. Place the speed control lever in 2nd speed position.
9. Adjust the rod by threading it in or out of the ferrule until it is all the way to the front of the slot as shown in figure 19.
10. Secure the speed control rod using the flat washer and hairpin cotter.

NEUTRAL ADJUSTMENT (See Figure 20)

1. Place the transmission in neutral. (The unit will move freely when pushed forward and backward with the parking brake released).
2. Loosen the bolt which secures the shift lever assembly to the shift lever adjusting link.
3. Place the shift lever in the neutral slot.
4. Tighten the hex bolt to 13 foot pounds.

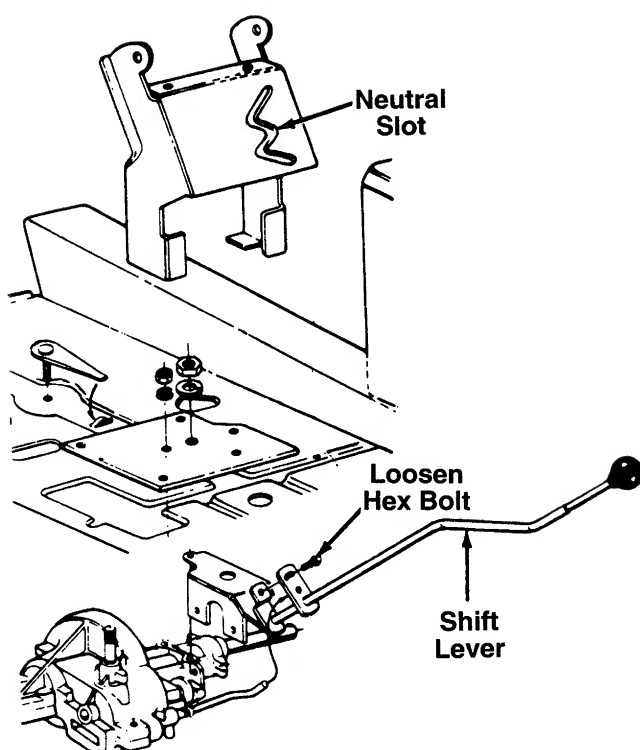


FIGURE 20.

BRAKE ADJUSTMENT (See Figure 21)

NOTE: Your brake may be equipped with a castle nut and cotter pin instead of the lock nut shown in figure 21.

The brake is located by the left rear wheel inside the frame. During normal operation of this machine, the brake is subject to wear and will require periodic examination and adjustment.

To adjust the brake, remove the cotter pin from the castle nut (if so equipped). Adjust the nut so the brake starts to engage when the brake lever is 1/4" to 5/16" away from the axle housing. Reinstall cotter pin if it was removed.

NOTE: Figure 21 is shown with the unit tipped up on rear wheels for clarity only.

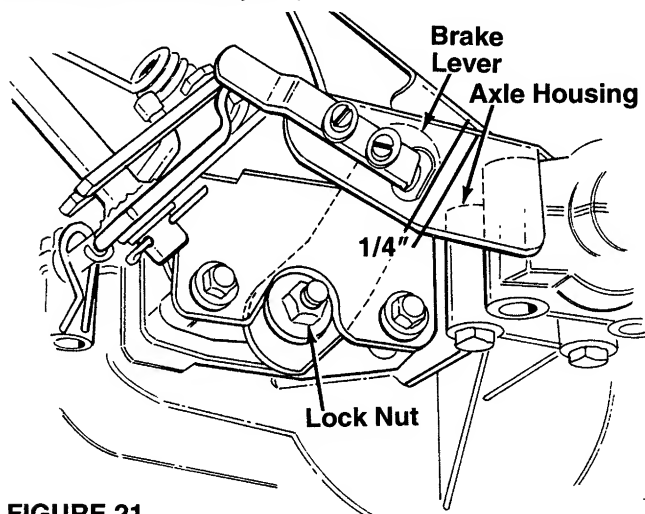


FIGURE 21.

WHEEL ALIGNMENT

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) require no adjustment. Automotive steering principles have been used to determine the caster and camber on the mower. The front wheels should toe-in 1/8 inch. See figure 22. To adjust, follow these steps:

1. Remove the cotter pin and flat washer which hold the tie rod to the axle bracket. See figure 22.
2. Adjust the tie rod in or out until the wheels toe-in approximately 1/8" (Dimension "A" should be approximately 1/8" less than dimension "B"). See figure 23.
3. Replace the tie rod into the wheel bracket, and replace the cotter pin and flat washer.

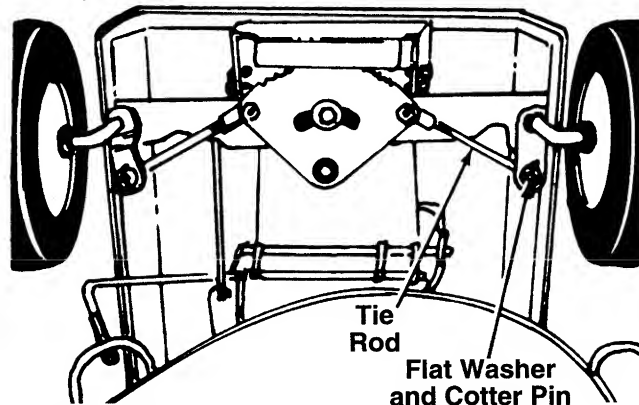


FIGURE 22.

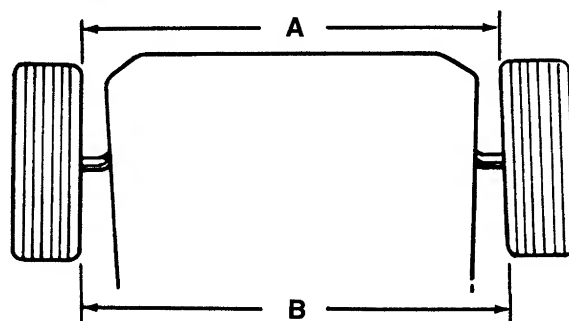


FIGURE 23.

DECK ADJUSTMENT

The deck adjustments which follow are for 30" decks only. For 32" or 38" decks, refer to the separate deck manual packed with your rider.

Side to Side Leveling

NOTE: Check tire pressure in all four tires before leveling the deck. Recommended tire pressure is 12 p.s.i.

If an uneven cut is obtained, the deck may be leveled. A deck adjustment rod is located on the right side of the unit. See figure 24.

To adjust the deck, loosen the two hex nuts at the right rear deck link assembly. Thread the hex nuts up or down the deck adjustment rod as necessary. Retighten the hex nuts.

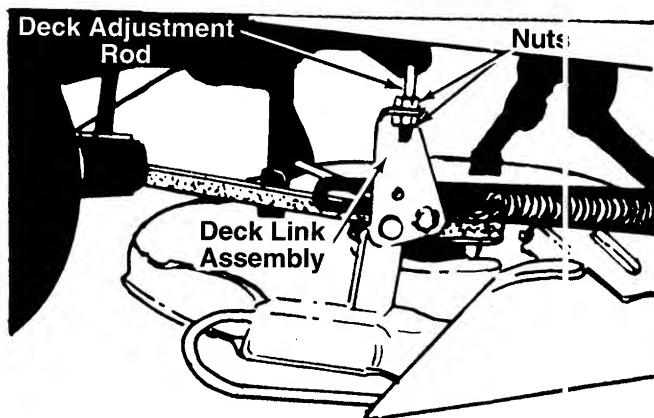


FIGURE 24.

Deck Pitch

The front of the deck should be approximately 1/4" to 3/8" lower than the rear of the deck. Adjust the pitch as follows.

1. Place the deck in the engaged position.
2. Remove the hairpin cotter and flat washer which hold the deck lift connecting rod to the front deck lift assembly. See figure 25.
3. Remove the connecting rod from the deck lift assembly and thread it in or out of the ferrule as necessary. See figure 25. Replace the rod.

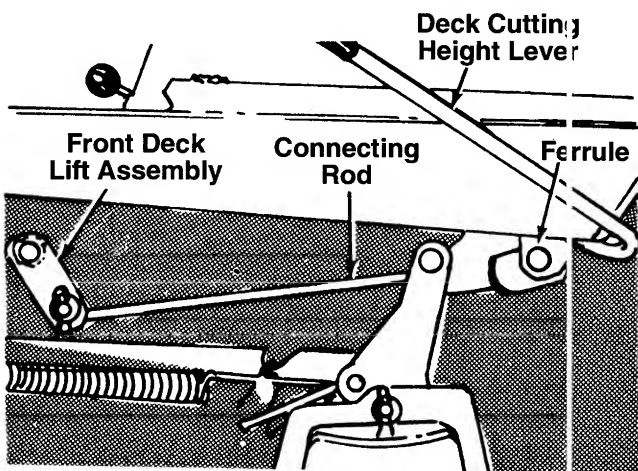


FIGURE 25.

BLADE BRAKE ADJUSTMENT (See Figure 26)



WARNING: Make certain spark plug wire is disconnected and grounded against the engine while making this adjustment.

To adjust the blade brake, proceed as follows.

1. Disconnect the brake cable from the lower inside belt guard on the rider by removing the hairpin cotter, flat washer and clevis pin.
2. Lower the deck to its lowest position. Place the blade engagement lever in the disengaged position.

3. Pull the brake cable back so there is no slack in the cable. **Do not** put tension on the cable. Select the hole in the lower inside belt guard which aligns with the end of the cable. Move the end of the brake cable **forward** to the next hole in the belt guard (which will give a small amount of slack in the cable), and reassemble.

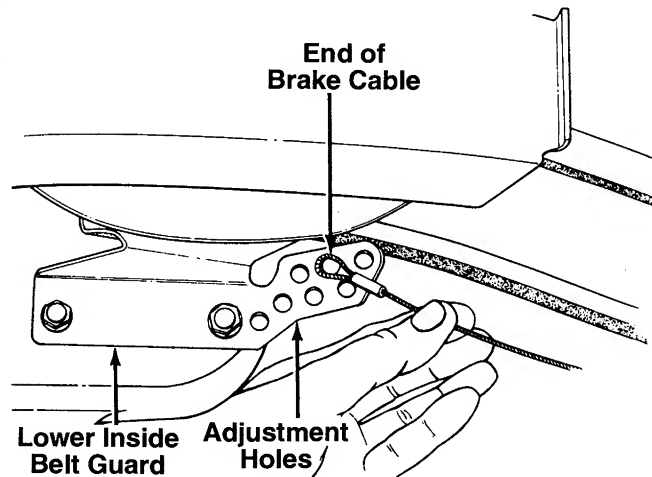


FIGURE 26.



WARNING: If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and blades. Keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load. To adjust the carburetor, refer to the separate engine manual packed with your unit.

NOTE: A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

LUBRICATION



WARNING: Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on riding mower.

1. **Engine.** Maintain the engine oil according to the engine manual.
2. **Front Wheels.** Front wheels which have bronze bearings are provided with grease fittings. Lubricate at least once a season with automotive multi-purpose grease. Wheels which have ball bearings do not require lubrication.
3. **Linkage.** Oil all deck linkage and height adjustment linkage.
4. **Transaxle.** It is lubricated at the factory and does not require checking. Lubricate with 10 oz. of grease (Part No. 737-0148) if disassembled.

MAINTENANCE



WARNING: Disconnect spark plug wire and ground it against the engine before performing any repairs or maintenance.

CUTTING BLADE

A. Removal for Sharpening or Replacement



WARNING: Be sure to disconnect and ground the spark plug wire before working on the cutting blade to prevent accidental engine starting. Protect hands by using heavy gloves or a rag to grasp the cutting blade.

1. Remove the large bolt and lock washer which holds the blade and adapter to the blade spindle. See figure 27.
2. Remove the blade and adapter from the spindle.
3. If the blade or blade adapter needs replacing, remove the two small bolts, lock washers and nuts which hold the blade to the adapter. See figure 27.

B. Sharpening

Remove the cutting blade by following the directions of the preceding section.

When sharpening the blade, follow the original angle of grind as a guide. It is **extremely important** that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

The blade can be tested for balance by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly.

NOTE: *It is recommended that the blade always be removed from the adapter for the best test of balance.*

C. Reassembly

Before reassembling the blade and the blade adapter to the unit, lubricate the spindle and the inner surface of the blade adapter with light oil. Lubricating the bolt holes, bolts and inner surface of the nuts with light oil is also recommended. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

When replacing the blade, be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position.

Blade Mounting Torque

3/8" Dia. Bolt 450 in. lb. min., 600 in. lb. max.

5/16" Dia. Bolt 200 in. lb. min., 350 in. lb. max.

NOTE: To insure safe operation, ALL nuts and bolts must be checked periodically for correct tightness.

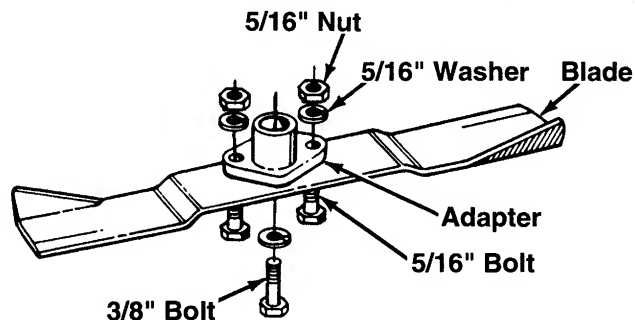


FIGURE 27.

FUEL FILTER

Your unit is equipped with a replaceable in-line fuel filter. Replace filter whenever contamination or discoloration is noticed. Order replacement filter through your engine authorized service dealer.

CLEANING ENGINE AND BLADE HOUSING

Any fuel or oil spilled on the machine should be wiped off promptly. Grass, leaves, and other dirt must not be left to accumulate around the cooling fins of the engine or on any part of the machine.

Clean the underside of the blade housing after each mowing.

BELTS

Check that belts are free of oil or dirt. Wipe the belts periodically with a clean rag.

ENGINE

Refer to separate engine manual for all engine maintenance instructions.

Maintain engine oil as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service air cleaner every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced.

The spark plug should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type and gap specification.

BATTERY MAINTENANCE

1. Check periodically (every two weeks or before and after charging) to be sure electrolyte level is above the lowest line on battery. Add only distilled water or good quality drinking water. NEVER add additional acid or other chemicals to battery after initial activation.

2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225, remove battery and recharge.
3. Coat the terminals and exposed wiring with a thin coat of grease or petroleum jelly for longer service and protection against electrolyte corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.

BATTERY STORAGE

1. Charge battery using normal methods. NEVER store discharged battery as it will not recover.
2. When storing battery for extended periods, disconnect battery cables. Removing battery from unit is recommended.
3. Store in cold, dry place.
4. Recharge battery whenever the specific gravity is less than 1.225, before returning to service, or every two months, whichever occurs first.

COMMON CAUSES FOR BATTERY FAILURE ARE:

1. Overcharging
2. Undercharging
3. Lack of water
4. Loose hold downs and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte

NOTE: THESE FAILURES DO NOT CONSTITUTE WARRANTY.

TIRES

Recommended operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure). Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

When installing a tire to the rim, be certain rim is clean and free of rust. Lubricate both the tire and rim generously. Never inflate to over 30 p.s.i. to seat beads.



WARNING: Excessive pressure (over 30 p.s.i.) when seating beads may cause tire/rim assembly to burst with force sufficient to cause serious injury.

DRIVE BELT REMOVAL AND REPLACEMENT

NOTE: It is recommended that the entire instructions on belt removal and replacement be read before changing the belts.

1. Disconnect the spark plug wire and ground it against the engine.

2. Remove the deck as described in the separate deck manual.
3. Unhook the idler spring from the rider frame. See figure 28.

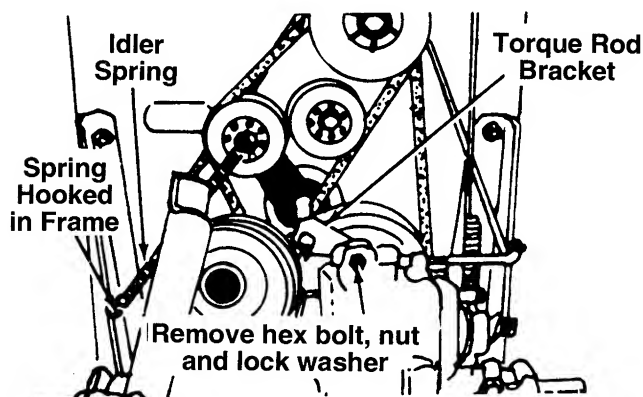


FIGURE 28.

4. Remove the hex bolt, nut and lock washer at the torque rod bracket and transaxle. See figure 29.
5. Remove the hex bolt which holds the torque rod bracket to the torque rod, and remove bracket. See figure 29.

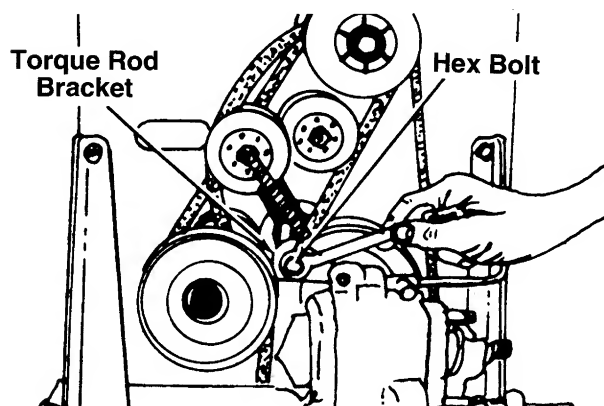


FIGURE 29.

6. Slip the "V"-belt off the variable speed pulley and transaxle pulley. See figure 30.

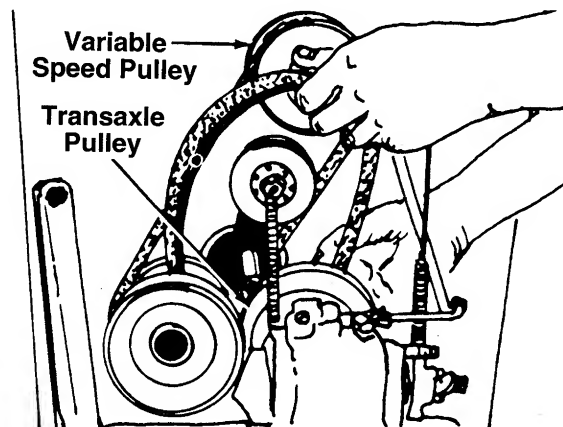


FIGURE 30.

7. Remove two hex bolts, nuts and lock washers from the engine pulley belt guard at rider frame to allow the engine pulley belt guard to drop down out of the way. See figure 31.

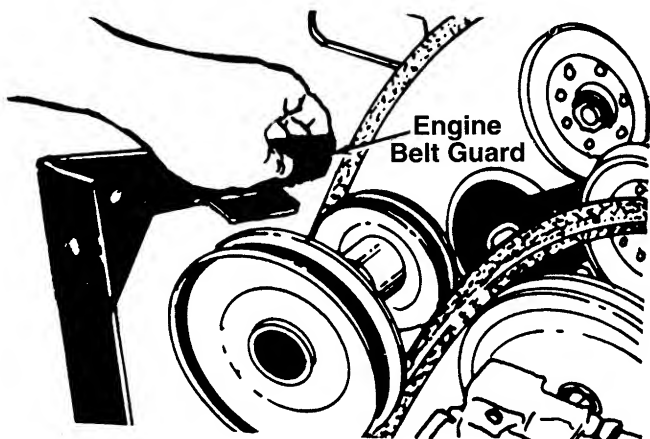


FIGURE 31.

8. Remove the idler pulley by removing the hex lock nut. See figure 32.

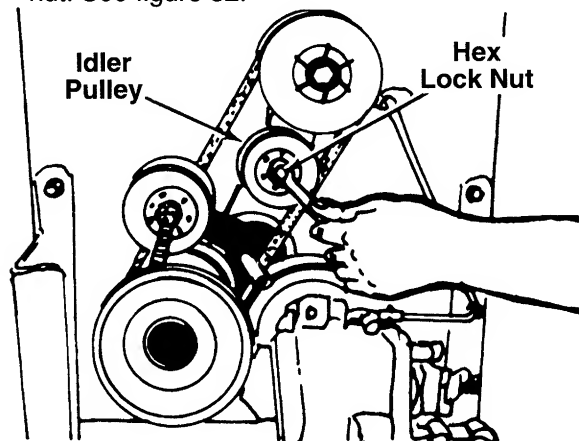


FIGURE 32.

9. Remove and replace the "V"-belt. See figure 33.

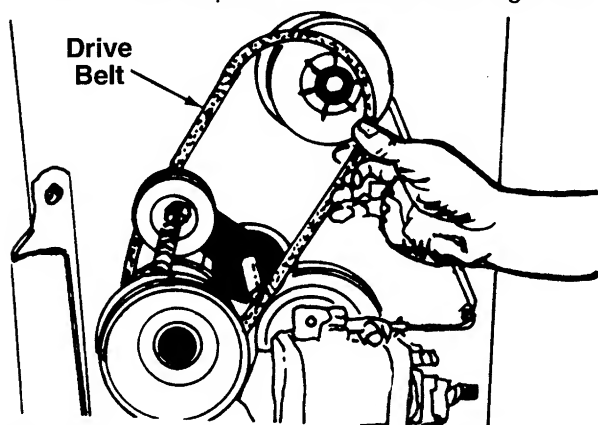


FIGURE 33.

10. Upon reassembly of idler pulley, be certain the hub side of idler goes against the idler bracket. See figure 34.
11. When sliding the idler pulley on the idler bracket, be certain the belt is between the pulley and guide pin. See figure 35.

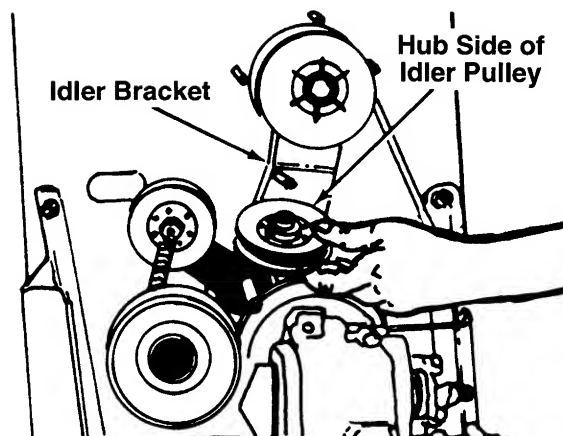


FIGURE 34.

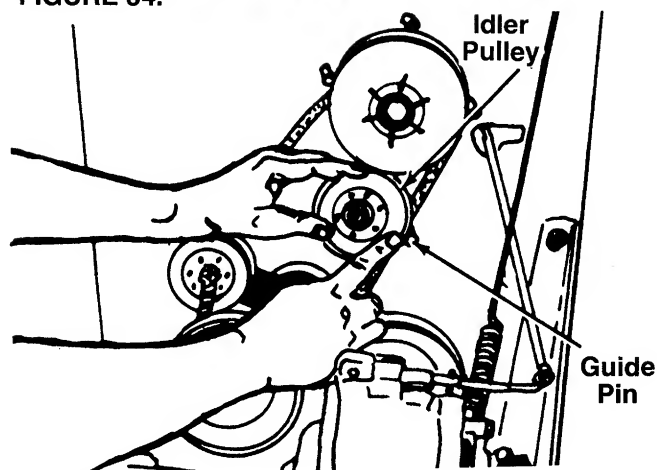


FIGURE 35.

12. Reverse the above steps (paying close attention to steps 10 and 11) when reassembling the new belts.

NOTE: Be certain all belts are inside belt guards and keepers. Also, be sure to reassemble the safety wire at the deck chute.

OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, prepare for storage as follows.

1. Clean the engine and the entire unit thoroughly.
2. Lubricate all lubrication points. Wipe the entire machine with an oiled rag to protect the surfaces.
3. Refer to the engine manual for correct engine storage instructions. The engine must be completely drained of fuel to prevent gum deposits from forming on essential carburetor parts, fuel lines and fuel tanks.
4. Refer to battery storage instructions on page 18.
5. Store unit in a clean, dry area. Do not store next to corrosive materials, such as fertilizer.

NOTE: When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially any chains, springs, bearings and cables.

TROUBLE SHOOTING GUIDE

TROUBLE	LOOK FOR	REMEDY
Engine will not crank	Battery installed incorrectly	The battery must be installed with the negative terminal, identified at the terminal post by (Neg, N or -), grounded. The positive terminal (Pos, P or +) attaches to the large cable from the solenoid. The small red wire from the fuse holder or circuit breaker is also attached to the positive terminal.
	Blown fuse or circuit breaker	Replace fuse with 7 1/2 amp. automotive type fuse. Fuses seldom fail without a reason. The problem problem must be corrected. Check for loose connections in the fuse holder. Replace fuse holder if necessary. A dead short may be in the cranking or charging circuit where the insulation may have rubbed through and exposed the bare wire. Replace the wire or repair with electrician's tape if the wire strands have not been damaged. Note: Look for a wire pinched between body panels, burned by the exhaust pipe or muffler or rubbed against a moving part.
	Battery is dead or weak	<p>Use a hydrometer to check the condition of the battery. The Specific Gravity (s.g.) should be 1.265 at 80°F. (1.215 s.g. minimum needed for cranking engine). The reason for the battery failing must be determined. (1) Defective battery. Battery will not accept or hold a full charge. (2) Short circuit. Check for grounded wire. (3) Charging system not working.</p> <p>The charging system is an alternator located under the flywheel. It is unregulated and rated 3 amp. at 3600 r.p.m. A diode (rectifier) is located in the output lead just before the wire harness plug on the engine side.</p> <div style="text-align: center;"> <p>The diagram illustrates the electrical connection from the alternator to the battery and lights. A wire from the alternator passes through a diode and a shrink tube before reaching a polarized plug. The plug has two terminals: one for 3 AMP DC to the battery and another for 7 AMP AC to the lamps. A black wire is also connected to the plug.</p> </div> <p>The diode changes A.C. to D.C. to charge the battery. A bad diode can either fail to charge the battery or discharge the battery if the alternator is shorted as well as the diode. To test: (1) Disconnect charger lead from the battery (small red wire). (2) Connect 12 V small test lamp between the 3 amp. D.C. charge lead and the positive terminal of the battery. (3) With the engine off, the lamp should not light. If it does, the diode and possibly the alternator should be replaced. (4) Start the engine. The lamp should light. If it does not, the alternator (stator) or lead wire is bad and should be replaced.</p>
	Mechanical failure (Wires and switches)	The interlock system includes two mechanical activated switches which are wired in series in the circuit used to energize the starter solenoid. While testing the interlock system, you will make the mower temporarily unsafe by permitting the engine to be started with the blade and clutch engaged. WARNING: While testing, disengage the clutch, shut off the blade control, set the parking brake and place the gear shift lever in neutral. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal on the solenoid. If the engine does not crank: (1) There is a loose connection or poor ground. (2) The solenoid may be bad. The solenoid can be checked by using a heavy wire (#8 gauge minimum) and jumping between the two large terminals. If the engine cranks, the solenoid is bad. (3) If the engine does not crank when you jump the solenoid, have the starter motor tested by an authorized engine dealer. If the engine does crank, the problem is with one of the safety switches, ignition switch or the wire between the fuse holder (or circuit breaker) and the small terminal on the solenoid. Note: Look for a poor connection at the switches or a defective switch. Replace if necessary.
Engine cranks but will not start	Throttle or choke not in starting position	Check owner's guide for correct position for throttle control and choke for starting.
	No spark to spark plug	<p>Spark plug lead disconnected. Connect lead. Hold spark plug lead away from engine block about 1/8". Crank engine. There should be a spark. If not, have engine repaired at authorized engine service dealer.</p> <p>Faulty spark plug. To test, remove spark plug. Attach spark plug lead to spark plug. Ground the spark plug body against the engine block. Crank the engine. The spark plug should fire at the electrode. Replace if it does not.</p>

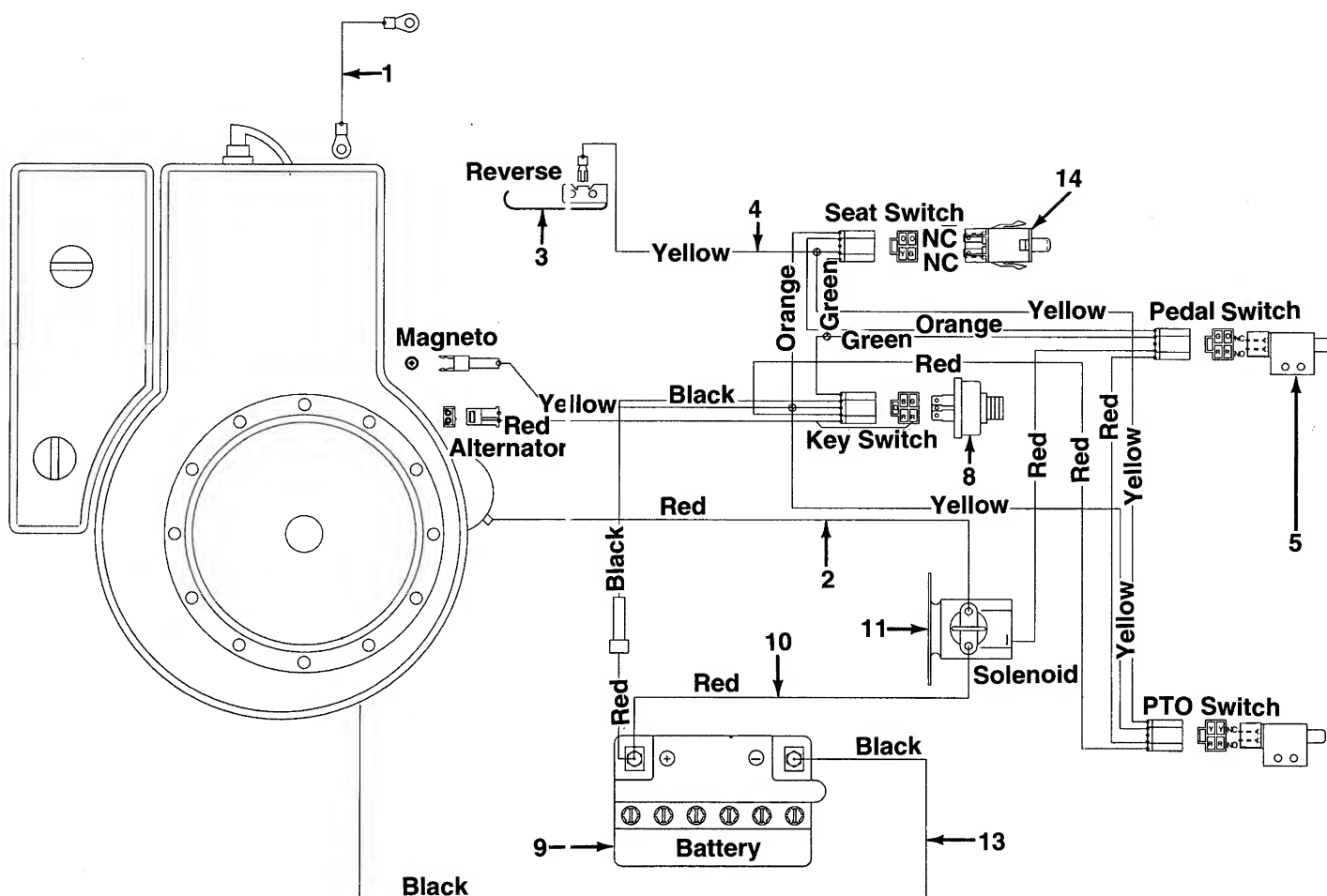
TROUBLE SHOOTING GUIDE (continued)

TROUBLE	LOOK FOR	REMEDY
	No fuel to the carburetor	Gasoline tank empty. Fill. Fuel line or in-line fuel filter plugged. Remove and clean fuel line. Replace filter if necessary.
	Air filter dirty	If the air cleaner is dirty, the engine may not start. Clean or replace as recommended by the engine manufacturer.
Engine smokes	Engine loses crankcase vacuum	Dipstick not seated or broken. Replace defective part. Engine breather defective. Replace.
Excessive vibration	Bent or damaged blade spindle	Stop engine immediately. Check all pulleys, blade adapters, keys and bolts for tightness and damage. Tighten or replace any damaged parts.
	Bent blade	Stop engine immediately. Replace damaged blade. Only use original equipment blades.
Mower will not discharge grass or leaves uncut strips	Engine speed low Transmission selection Blades short or dull	Throttle must be set at full throttle. Use lower transmission speed. The slower your ground speed, the better the quality of cut. Sharpen or replace blades (uncut strip problem only).

BELT TROUBLE SHOOTING GUIDE

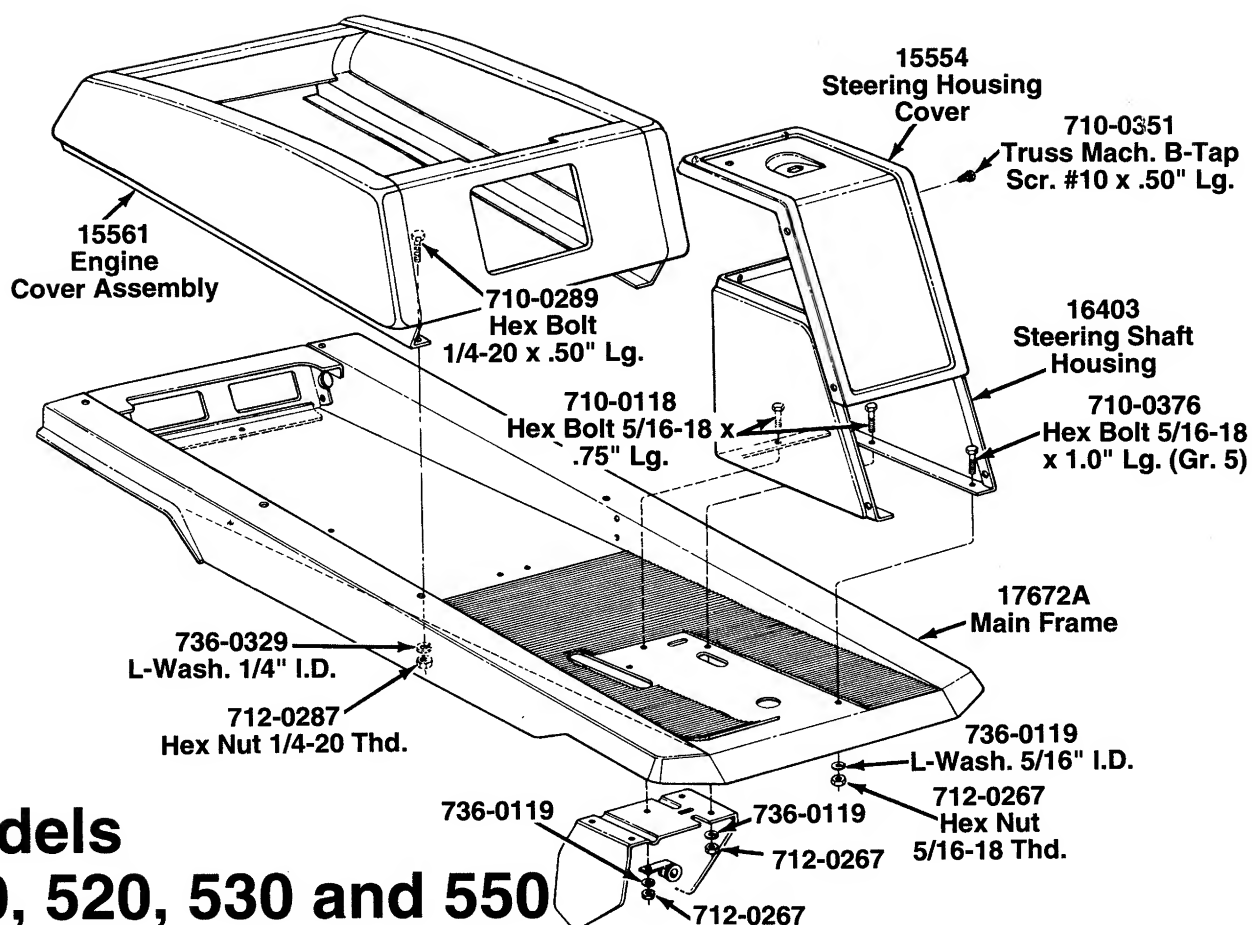
Failure	Probable Cause	Corrective Action
1 Broken Belt	1A Sudden stop or shock load to belt 1B Incorrect belt used 1C Abrupt engagement 1D Defective or damaged belt	1A Inspect rider for cause such as foreign objects stuck in between deck and frame or belt path. Remove obstruction and inspect for damage. Replace belt per parts list in this manual. 1B Replace with proper belt only. See parts list in this manual. Roll belt onto pulley. Do not use a screwdriver to push or pry belt onto pulley. The sharp bend can damage internal cords. 1C Slower engagement required. 1D Refer to 1B.
2 Belt Shreds	2A Belt guides or guards incorrectly adjusted 2B Pulleys not aligned 2C Bad pulley—rough, rusty, chipped, bent, frozen bearing, etc.	2A Belt guides and guards should be adjusted to approximately 1/16 to 1/8 inch from belt when in the engaged position. 2B Realign pulleys to be within approximately 1/16 inch of each other. Check with straight edge. Be sure fastening hardware is tight. 2C Replace as necessary. Adjust as per 2B.
3 Belt Comes Off	3A Belt stretched 3B Broken or weak idler spring	3A Adjust as necessary when applicable. Refer to 1B. 3B Replace.

Models 510 thru 551

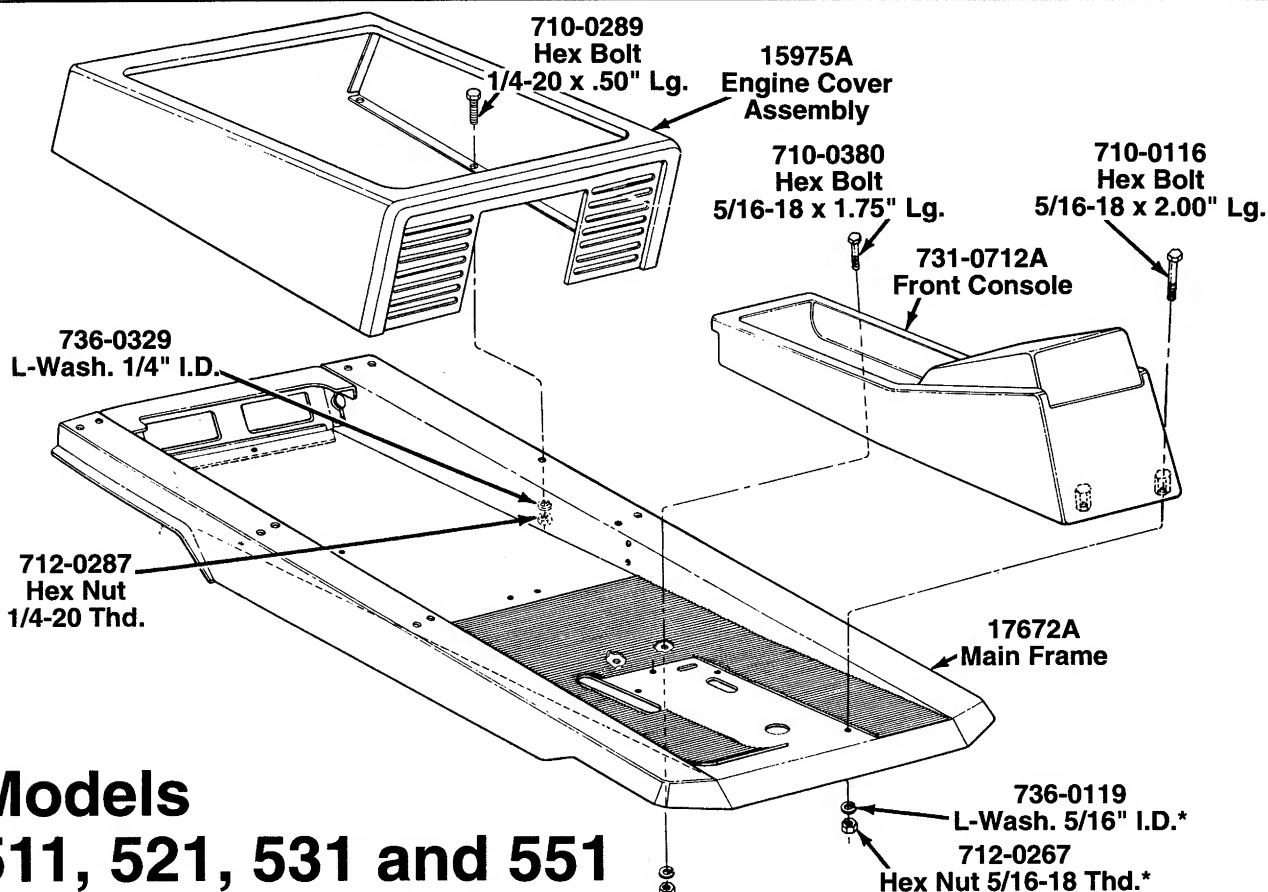


**PARTS LIST FOR ELECTRICAL SYSTEM
MODELS 510 THRU 551 RIDING MOWERS**

REF. NO.	PART NO.	CODE	DESCRIPTION
1	725-0977	N	Elec. Wire 8 Ga. x 9.0" Lg.
2	725-0424		Elec. Wire
3	732-0615		Spring Switch—Reverse
4	629-0054		Wire Harness
5	725-3169A		Safety Switch
8	725-0267		Ignition Switch
9	725-0514A		Battery 12V
10	725-0927		Elec. Wire Red w/Boot
11	725-1426		Solenoid
13	725-0975		Elec. Wire 8 Ga. x 9.0" Lg.
14	725-1441		Seat Switch

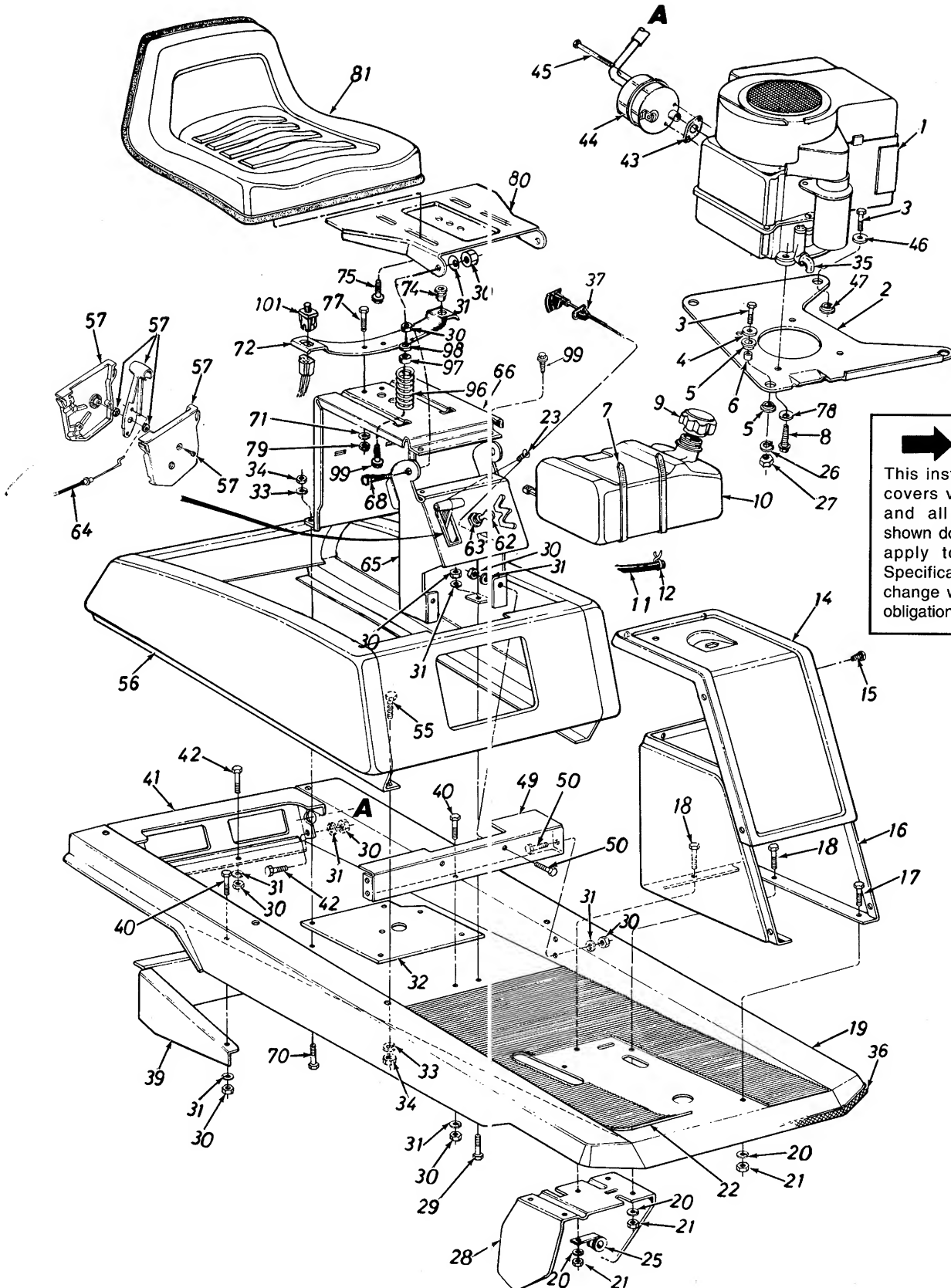


Models 510, 520, 530 and 550



Models 511, 521, 531 and 551

Models 510 thru 551



NOTE
 This instruction manual covers various models, and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

Models 510 thru 551

PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	—		Engine	44	751-0412		Muffler Ass'y. (8 H.P.)
2	15572A		Engine Mounting Plate		751-0425		Spark Arrester
3	710-0158		Hex Bolt 5/16-24 x 1.25" Lg.*				For 8 H.P. Muffler†
4	736-0231		FI-Wash. .330" I.D. x 1.125" O.D.		751-0413		Muffler Ass'y. (10, 11 & 12 H.P.)
5	722-0153		Engine Mounting Grommet		751-0426		Spark Arrester For
6	750-0539		Spacer .315" I.D. x .50" O.D. x .520" Lg.	45	738-0635		10, 11 & 12 H.P. Muffler†
7	726-0209		Cable Tie 30.6 Lg.		738-0636		Shld. Bolt (8 H.P.)
8	710-0502A		Hex Wash. Hd. Self-Tap Scr. 3/8-16 x 1.25" Lg.	46	736-0343		Shld. Bolt (10, 11 & 12 H.P.)
9	751-3071		Gas Cap	47	736-0392		FI-Wash. .330" I.D. x 1.25" O.D.
10	751-0368A		Fuel Tank				Flange Wash. .320" I.D. x .750" O.D.
11	751-0535-26		Fuel Line—26" Lg.	49	15604		Seat Support & Frame Brkt.
12	726-0205		Hose Clamp—1/2" O.D. Tube	50	710-0118		Hex Bolt 5/16-18 x .75" Lg.*
14	—		Refer to Page 23	55	710-0289		Hex Bolt 1/4-20 x .50" Lg.*
15	—		Refer to Page 23	56	—		Refer to Page 23
16	—		Refer to Page 23	57	831-0823A		Throttle Control Box Ass'y.
17	—		Refer to Page 23	62	725-0201		Ignition Key
18	—		Refer to Page 23	63	725-0267		Ignition Switch
19	—		Refer to Page 23	64	746-0503		Throttle Control Wire 35" Lg.
20	—		Refer to Page 23		746-0891	N	Throttle Control Wire 30.5" Lg.
21	—		Refer to Page 23	65	16483A		Front Seat Bracket
22	735-0220A		Floor Mat	66	15606A		Rear Seat Bracket
23	710-0779A		Truss Mach. AB-Tap Scr. #10 x .50" Lg.	68	738-0296		Shld. Bolt .437" Dia. x .268" Lg.
25	726-0175		Clamp	69	712-0267		Hex Nut 5/16-18 Thd.*
26	736-0119		L-Wash. 5/16" I.D.*	70	710-0855		Hex Tap Scr. 1/4-20 X 1.0" Lg.
27	712-0123		Hex Nut 5/16-24 Thd.*	71	736-0119		L-Wash. 5/16" I.D.*
28	17677		Clutch-Brake Pedal Ass'y.	72	732-0632		Seat Spring
29	710-0118		Hex Bolt 5/16-18 x .75" Lg*	74	731-0555A		Grommet
30	712-0267		Hex Nut 5/16-18 Thd.*	75	710-0623		Hex Wash. Hd. Tap Scr. 3/8-16 x 3/4" Lg.
31	736-0119		L-Wash. 5/16" I.D.*	77	710-0118		Hex Bolt 5/16-18 x .75" Lg.*
32	783-0005		Variable Speed Mounting Plate	78	736-0242		Bell-Wash. .345" I.D. x .88" O.D.
33	736-0329		L-Wash. 1/4" I.D.*	79	712-0158		Hex Cent. L-Nut 5/16-18 Thd.
34	712-0287		Hex Nut 1/4-20 Thd.*	80	15607D		Seat Pivot Bracket
35	737-0125		90° Elbow Male To Female	81	757-0345		Seat Ass'y. Comp.
36	731-0511-18		Trim Strip 18" Lg.	96	732-0633		Compression Spring 2.7" Lg.
37	746-0614A		Choke Control	97	722-0160		Bushing
39	15552		Transaxle Support Ass'y.	98	736-0159		FI-Wash. .344" I.D. x .875"
40	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	99	710-0376		Hex Bolt 5/16-18 x 1" Lg.
41	15571		Rear Frame Panel				(Gr. 5)
42	710-0621		Hex Bolt 5/16-18 x .50" Lg.*	101	725-1441		Seat Switch
43	721-0207		Exhaust Gasket (8 H.P.)				
	721-0208		Exhaust Gasket (10, 11 & 12 H.P.)				

†Optional Parts

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

CODE: N notates a **new part** (not previously existing). A three digit number is the **color code**. Specify color code as shown below if color or finish is important when ordering parts. [i.e., 638 for Red Finish].

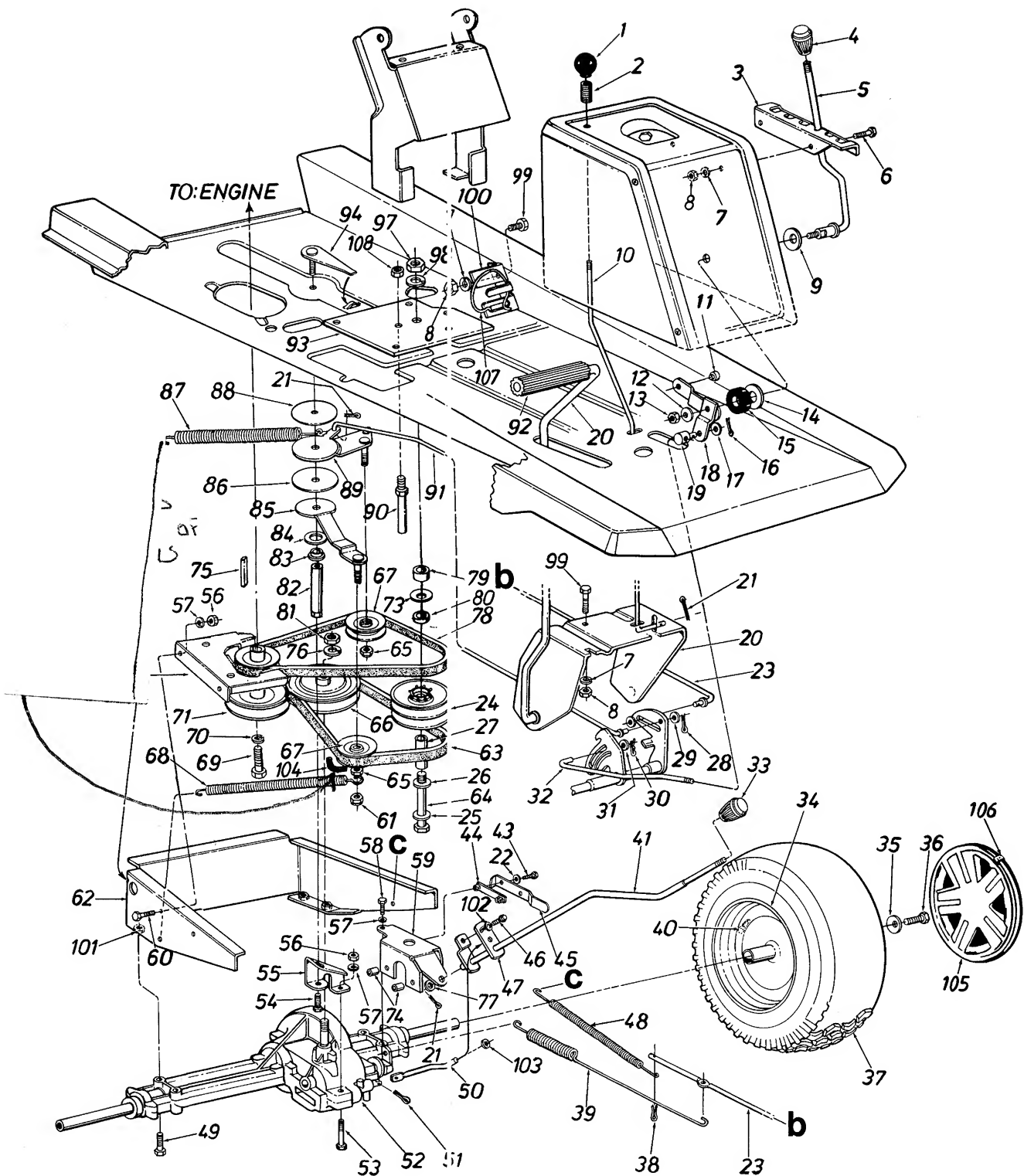
NOTE: The engine is not under warranty by the mower manufacturer. . . If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."



Color Codes

456—Radiant Tangerine	637—Black
460—Green Flake	638—Red
483—Charcoal Gray	640—Green
498—Yellow	646—CM Blue
499—Beige	657—Teal
629—Silver Flake	

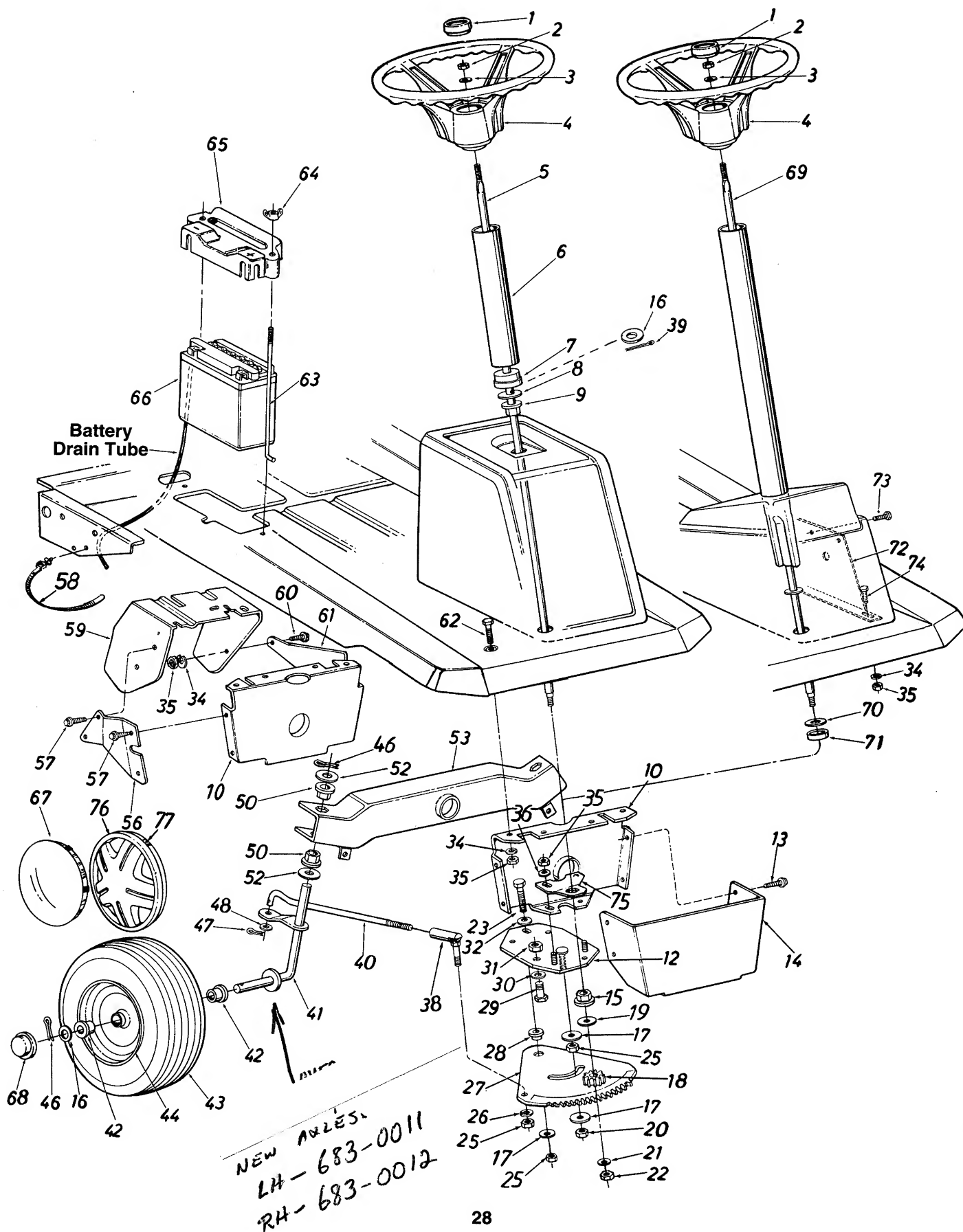
Models 510 thru 551



IMPORTANT: Use only Original Equipment Manufacturer (O.E.M.) V-belts when replacing belts. They are of special construction (type of cord, cord location, length, etc.). Use of V-belts other than O.E.M. belts generally will provide only temporary service. For best results, use only factory approved parts.

NOTE: If brand of tire is important, order by part number and description (description is printed on the sidewall of tire) [i.e. Armstrong Super Turf, Goodyear Softrac, Carlisle Turf Saver, etc.].

Models 510 thru 551



Models 510 thru 551

PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	720-0187		Ball Knob 1/4-20 Thd. 1.25"	55	15564A		Torque Rod Bracket
2	732-0437		Compression Spring	56	712-0287		Hex Nut 1/4-20 Thd.*
3	16389		Speed Index Bracket	57	736-0329		L-Wash. 1/4" I.D.*
4	720-0232		Shift Knob	58	710-0965		Self-Tap Mach. Scr. Type "C"
5	747-0652		Speed Control Lever				1/4-20 x 1.37" Lg.
6	710-0323		Truss Mach. Scr. 5/16-18 x .75" Lg.*	59	17515		Shift Lever Support Brkt.
7	736-0119		L-Wash. 5/16" I.D.*	60	710-0597		Hex Bolt 1/4-20 x 1.00" Lg.*
8	712-0267		Hex Nut 5/16-18 Thd.*	61	712-0262		Hex L-Nut 3/8-24 Thd.
9	736-0253		Bell-Wash. .345" I.D. x .88"	62	15552		Transaxle Support Ass'y.
10	747-0427		Brake Locking Rod (510, 520, 530 & 550)	63	754-0240		V-Belt
	747-0450		Brake Locking Rod (511, 521, 531 & 551)	64	710-0693		Hex Bolt 3/8-16 x 4.5" Lg.
11	731-0493		Cap	65	712-0116		Hex Ins. L-Nut 3/8-24 Thd.
12	736-0242		Bell-Wash. .345" I.D. x .68"	66	756-0579		V-Pulley
13	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	67	756-0116		V-Belt Idler .38" I.D. x 3.06"
14	736-0100		Fl-Wash. .531" I.D. x 1.25" O.D.	68	732-0308		Ext. Spring .50" O.D. x 6.37"
15	735-0219		Rubber Washer	69	710-0314		Hex Bolt 7/16-20 x 1.00" Lg.
16	714-0145		Intern. Cotter Pin 1/2" Dia.	70	736-0171		L-Wash. 7/16" I.D.
17	736-0275		Fl-Wash. .34" I.D. x .68" O.D.	71	756-0391		Engine Pulley (30" Deck)
18	16396		Speed Control Lever Brkt. Ass'y.		756-0521		Engine Pulley (30" Deck Export)
19	711-0677		Ferrule—Engagement	72	15623		Engine Pulley (32" Deck)
20	17677		Clutch/Brake Pedal Ass'y.	73	736-0219		Engine Pulley (38" Deck)
21	714-0507		Cotter Pin 3/32" Dia. x .75"	74	750-0686		Upper Eng. Belt Guard
22	736-0426		Plastic Washer	75	714-0114		Bell-Wash. .4" I.D. x 1.12" O.D.
23	747-0431		Brake Rod	76	736-0427		Spacer .256" I.D. x .50" O.D.
24	717-0884		Variable Speed Pulley Ass'y.	77	736-0226		Sq.-Key 1/4" x 2.00" Lg.
25	736-0247		Fl-Wash. .4" I.D. x 1.25" O.D.	78	754-0241		Bell-Wash. .567" I.D. x 1.125"
26	741-0405		Thrust Brg. 1.25" O.D. x .56" I.D.	79	750-0706		Fl-Wash. .469" I.D. x .88" O.D.
27	750-0705		Spacer Sleeve 2.71"	80	741-0405		V-Belt
28	714-0115		Cotter Pin 1/8" Dia. x 1.25"	81	712-3035		Spacer 1.00" x .380" O.D.
29	736-0275		Fl-Wash. .34" I.D. x .60" O.D.	82	711-0676		Thrust Wash. .56" I.D. x 1.25" O.D.
30	714-0104		Intern. Cot-Pin 5/16" Dia.	83	748-0294		Hex Jam Nut 9/16-18 Thd.
31	736-0275		Fl-Wash. .34" I.D. x .60" O.D.	84	736-0187		Torque Rod
32	747-0394A		Speed Control Link	85	15569A		Flange Bearing .378
33	720-0232		Shift Knob	86	736-0283		Fl-Wash. .640" I.D. x 1.24"
34	734-0594		Rear Wheel Rim Only	87	732-0556		Idler Bracket Ass'y.
35	736-0242		Bell-Wash. .345" I.D. x .38"	88	736-0284		Thrust Wash. .635" I.D.
36	710-0627		Hex L-Bolt 5/16-24 x .75" Lg.	89	15585		Extension Spring 7.58" Lg.
37	734-0591		Rear Wheel Ass'y.—Comp.	90	711-0640		Thrust Wash. .385" I.D.
	734-0275		Tire Only	91	747-0560		Idler Bracket Ass'y. For Clutch
38	714-0470		Cotter Pin 1/8" Dia. x 1.25"	92	735-0196		Belt Guard Pin 3/8-16 x 2.75" Lg.
39	732-0389		Extension Spring 17.0" Lg.	93	783-0005		Clutch Rod
40	734-0255		Air Valve	94	15642		Foot Pad
41	16475		Shift Lever Ass'y.	97	712-0798		Variable Speed Mtg. Plate
43	710-0227		Hex Wash. Hd. Scr. #8 x .5" Lg.	98	736-0217		Weld Bolt Brkt. Ass'y.
44	726-0222		Insulator Nut	99	710-0118		Hex Nut 3/8-16
45	732-0615		Spring Switch	100	17839		L-Wash. 3/8 Heavy Duty
46	710-0289		Hex Bolt 1/4-20 x .50" Lg.*	101	712-0265		Hex Bolt 5/16-18 x .75" Lg.*
47	16476		Shift Lever Adjusting Link	102	736-0270		Speed Control Rod Brkt.
48	732-0487		Ext. Spring 8 1/4" Lg.	103	726-0231		Hex Sems Nut 5/16-18 Thd.
49	710-0378		Hex Bolt 5/16-18 x 2.5" Lg.	104	747-0758		Bell-Wash. .265" I.D. x .75" O.D.
50	747-0668		Shift Rod	105	734-1614		Push on Retaining Ring
51	714-0149B		Intern. Cotter Pin		734-1504		Belt Guard
52	—		Transaxle (See Breakdowns)	106	727-0425		Hub Cap—Beige (Optional)
53	710-0136		Hex Bolt 1/4-20 x 1.75" Lg.*	107	732-0525		Hub Cap—Grey (Optional)
54	710-0180		Hex Bolt 3/8-24 x .75" Lg.*	108	712-0181		Spring Clip (Used w/Ref. #105)
							Comp. Spring Clip
							Hex Top L-Jam Nut 3/8-16 Thd.

Models 510 thru 551

PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	731-0220		Steering Wheel Cap	39	714-0115		Cotter Pin 1/8" Dia. x 1.00" Lg.*†
2	712-0237		Hex L-Nut 5/16-24 Thd.				Steering Tie Rod
3	736-0242		Bell-Wash. .345" I.D. x .88" O.D.	40	747-0417		Front Axle Ass'y.—R.H.
4	731-0805		Steering Wheel Ass'y.	41	15616A		Front Axle Ass'y.—L.H. (Not Shown)
5	738-0700		Steering Shaft†		15617A		Flange Bearing
6	750-0568		Steering Tube Spacer (Chrome)†	42	Δ		Front Wheel Ass'y. Comp.
7	731-0651		Steering Tube Spacer†	43	Δ		Front Wheel Rim Only
8	736-0187		FI-Wash. .635" I.D. x 1.24" O.D.†	44	Δ		Cotter Pin 1/8" Dia. x 1.25"*
9	741-0225		Hex Flange Bearing†	46	714-0470		Cotter Pin 1/8" Dia. x 1.00"*
10	15613A		Pivot Bar Bracket	47	714-0115		FI-Wash. .385" I.D. x .87"
12	17653A		Steering Gear Support Brkt.	48	736-0300		Hex Flange Bearing
13	710-0776A		Hex Wash. Hd. AB-Tap Scr. 1/4 x .62" Lg.	50	741-0225		FI-Wash. .635" I.D. x 1.12"
14	15608		Steering Gear Cover	52	736-0156		Pivot Bar Ass'y.
15	741-0225		Hex Flange Bearing	53	15610A		Bracket Reinforcement—R.H.
16	736-0285		FI-Wash. .640" I.D. x 1.5" O.D.	56	15694A		Hex Wash. Hd. AB-Tap Scr. 1/4 x .62" Lg.
17	736-0320		FI-Washer 3/8" I.D. x 1.37" O.D.	57	710-0776A		Cable Tie**
18	748-0290		Steering Pinion Gear	58	726-0154		Clutch-Brake Pedal Ass'y.
19	736-0272		FI-Wash. .510" I.D. x 1" O.D.	59	17677		Hex Bolt 5/16-18 x .75" Lg.*
20	712-0116		Hex L-Nut 3/8-24	60	710-0118		Bracket Reinforcement—L.H.
21	736-0275		FI-Wash. .34" I.D. x .68" O.D.	61	15699A		Hex Bolt 5/16-18 x .75" Lg.*
22	712-0123		Hex Nut 5/16-24 Thd.	62	710-0118		Battery Hold Down Rod
23	710-0459		Hex Bolt 3/8-24 x 1.5" Lg. (Grade 5)	63	711-0222		Wing Nut Solid 1/4-20 Thd.
25	712-0241		Hex Nut 3/8-24 Thd.*	64	712-0113		Battery Hold Down Cover
26	736-0169		L-Wash. 3/8" I.D.*	65	731-0708		12V Battery
27	717-0472A		Steering Gear Segment	66	725-0514A		Chrome Hub Cap (Optional)
28	738-0541		Shoulder Spacer .622" Dia. x .218	67	734-1219		Plastic Hub Cap (Optional)
29	710-0689		Hex Bolt (Nylon) 1/2-13 x .75"	68	731-0484A		Steering Shaft Ass'y.††
30	736-0160		FI-Wash. .530" I.D. x .930"	69	16513		FI-Wash. .635" I.D. x 1.24" O.D.††
31	712-0206		Hex Nut 1/2-13 Thd.*	70	736-0187		Spacer (Plastic)††
32	736-0105		Bell-Wash. .385" I.D. x .88"	71	750-0532		Reinf. Brkt. Ass'y.††
33	712-0241		Hex Nut 3/8-24 Thd.*	72	16069		Truss Mach. Scr. 5/16-18††
34	736-0119		L-Wash. 5/16" I.D.*	73	710-0323		Hex Bolt 5/16-18 x 2.00" Lg.††
35	712-0267		Hex Nut 5/16-18 Thd.*	74	710-0116		Steering Gear Adjuster Ass'y.
36	736-0271		Spr. Wash. .32" I.D. x .62" O.D.	75	17656A		Hub Cap—Beige (Optional)
38	723-0156		Ball Joint Ass'y. 3/8-24 Thd.	76	734-1610		Hub Cap—Grey (Optional)
				77	734-1502		Spring Clip (Used w/Ref. 76)
					727-0425		

†Models 510, 520, 530 and 550 Only

††Models 511, 521, 531 and 551 Only

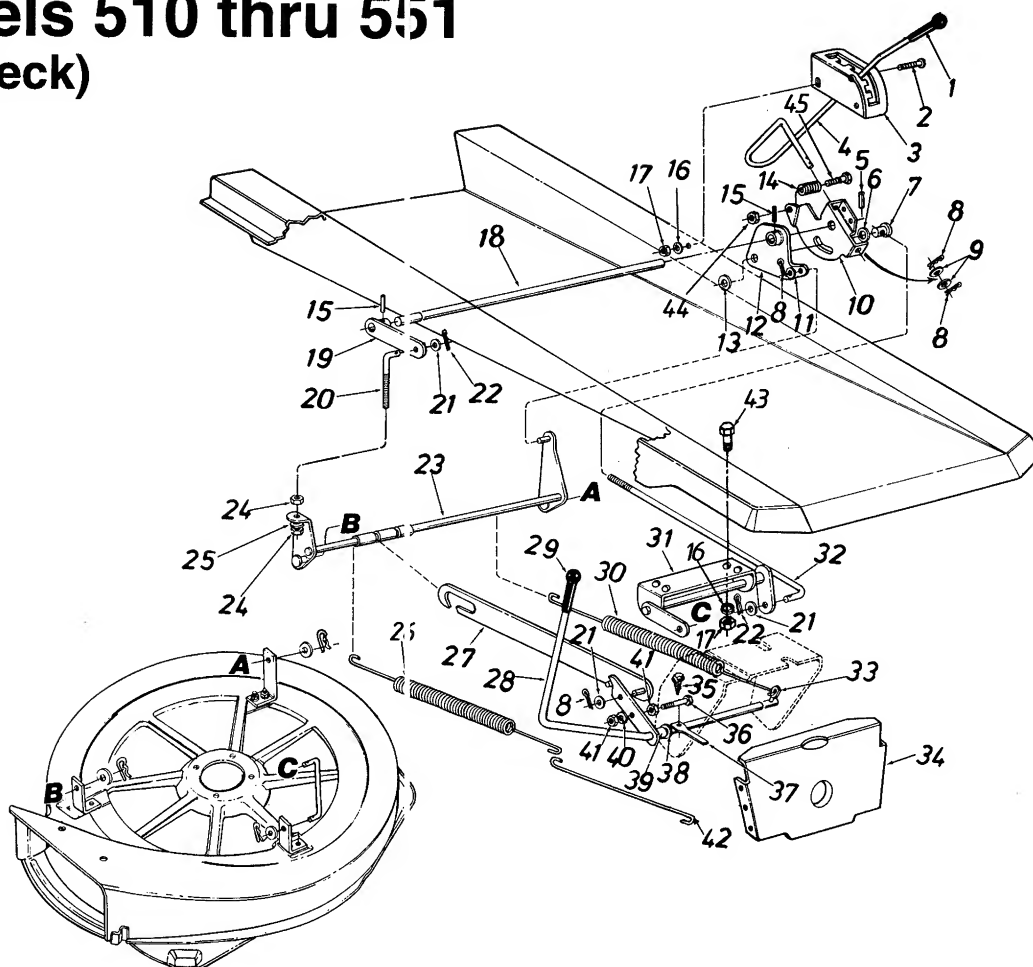
*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

Δ FRONT WHEEL CHART

Description	11 X 4.0 Nylon Brg.	11 X 4.0 Ball Brg.
Wheel Assembly Comp.	734-1454	734-1686
Tire Only	734-1382	734-1382
Rim Only	734-1455	734-1683
Bearing	741-0487	741-0569
Air Valve	734-0255	734-0255
Grease Fitting	737-0280	—

NOTE: If brand of tire is important, order by part number and description (description is printed on the sidewall of tire) [i.e. Armstrong Super Turf, Goodyear Softrac, Carlisle Turf Saver, etc.].

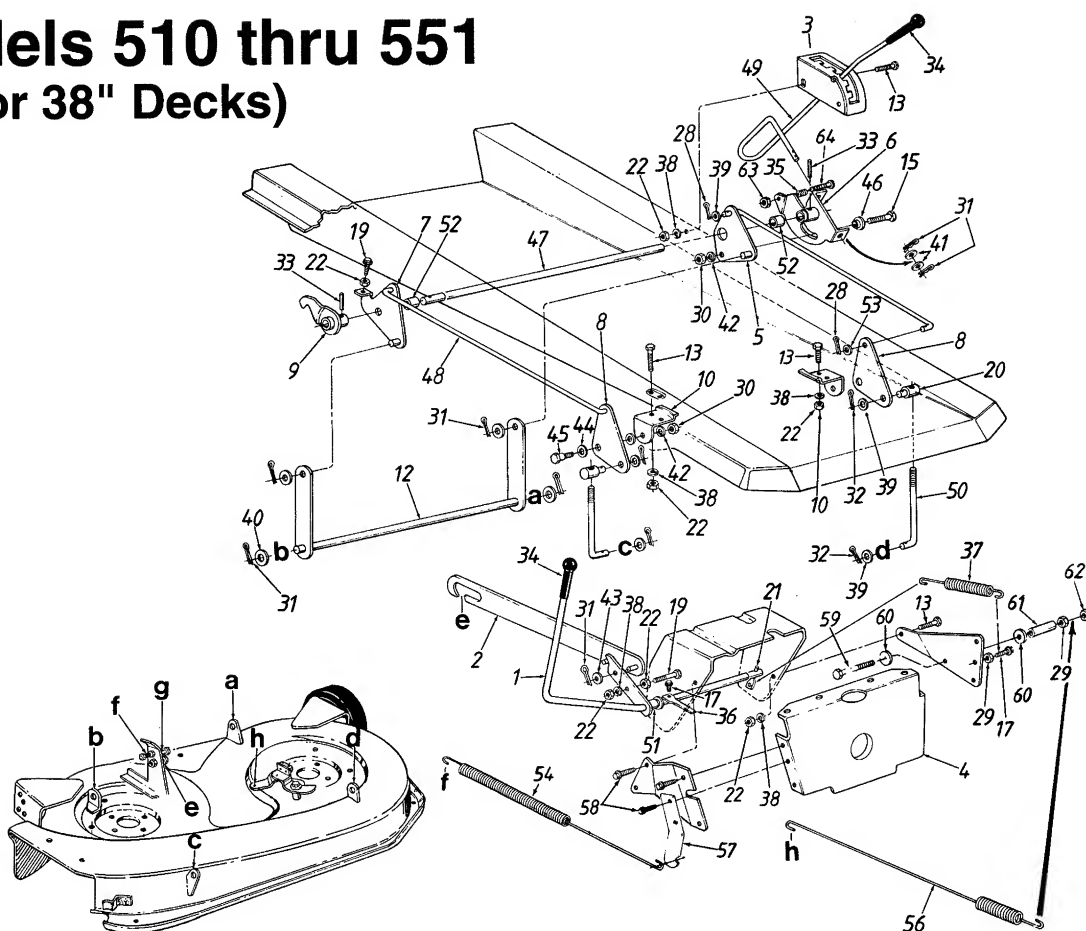
Models 510 thru 551 (30" Deck)



PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS WITH 30" DECK

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	720-0223		Grip	23	15600A		Deck Link Ass'y.—Rear
2	710-0323		Truss Mach. Scr. 5/16-18 x .75" Lg.*	24	712-0798		Hex Nut 3/8-16 Thd.*
3	16397		Deck Index Bracket	25	736-0169		L-Wash. 3/8" I.D.*
4	747-0651		Deck Lift Handle	26	732-0540	0530	Extension Spring 13.84" Lg.
5	715-0134		Spring Pin Spir. 3/16" D a. x 1.50" Lg.	27	15644A		Deck Drive Control Bracket
6	736-0187		FI-Wash. .385" I.D. x .87" O.D.	28	15568A	N	Blade Engagement Lever Ass'y.
7	711-0749		Adj. Ferrule Deck Lift Handle	29	720-0223		Grip
8	714-0115		Cotter Pin 1/8" Dia. x 1.00"*	30	732-0540	0530	Extension Spring .73" O.D. x 13.84" Lg.
9	736-0160		FI-Wash. .531" I.D. x .930" O.D.	31	15573A		Deck Lift Ass'y.—Front
10	16401A	N	Deck Lift Handle Retainer	32	747-0426		Deck Lift Connecting Rod
11	736-0300		FI-Wash. .385" I.D. x .87" O.D.	33	711-0753		Clevis Pin Special .250" Dia.
12	15578		Deck Lift Brkt. Ass'y.—L.H.	34	15613A	N	Pivot Bar Bracket
13	736-0162		FI-Wash. .635" I.D. x 1.04" O.D.	35	710-3243	N	Hex TT-Tap Scr. #12-24 x .5" Lg.
14	732-0711		Compression Spring .5" Dia. x .9" Lg.	36	710-0805		Hex Bolt 5/16-18 x 1.50" Lg. (Grade 5)
15	715-0114		Spring Pin Spir. 1/4" Dia. x 1.50" Lg.	37	732-0435		Switch Actuator
16	736-0119		L-Wash. 5/16" I.D.*	38	736-0160		FI-Wash. .531" I.D. x .930" O.D.
17	712-0267		Hex Nut 5/16-18 Thd.*	39	750-0760		Spacer .511" I.D. x .70" O.D. x .38" Lg.
18	738-0550		Rear Hgt. Adj. Shaft	40	736-0119		L-Wash. 5/16" I.D.*
19	15609A		Deck Lift Brkt. Ass'y.—R.H.	41	712-0267		Hex Nut 5/16-18 Thd.*
20	710-0866		Deck Adj. Scr. 3/8-16 Thd.	42	732-0451B		Spring Hook
21	736-0300		FI-Wash. .385" I.D. x .87" O.D.	43	710-0118		Hex Bolt 5/16-18 x .75" Lg.
22	714-0145		Intern. Cotter Pin 1/2" Dia.	44	712-0291		Hex Cent. L-Nut 1/4-20 Thd.
				45	710-0106		Hex Bolt 1/4-20 x 1.25" Lg.*

Models 510 thru 551 (32" or 38" Decks)

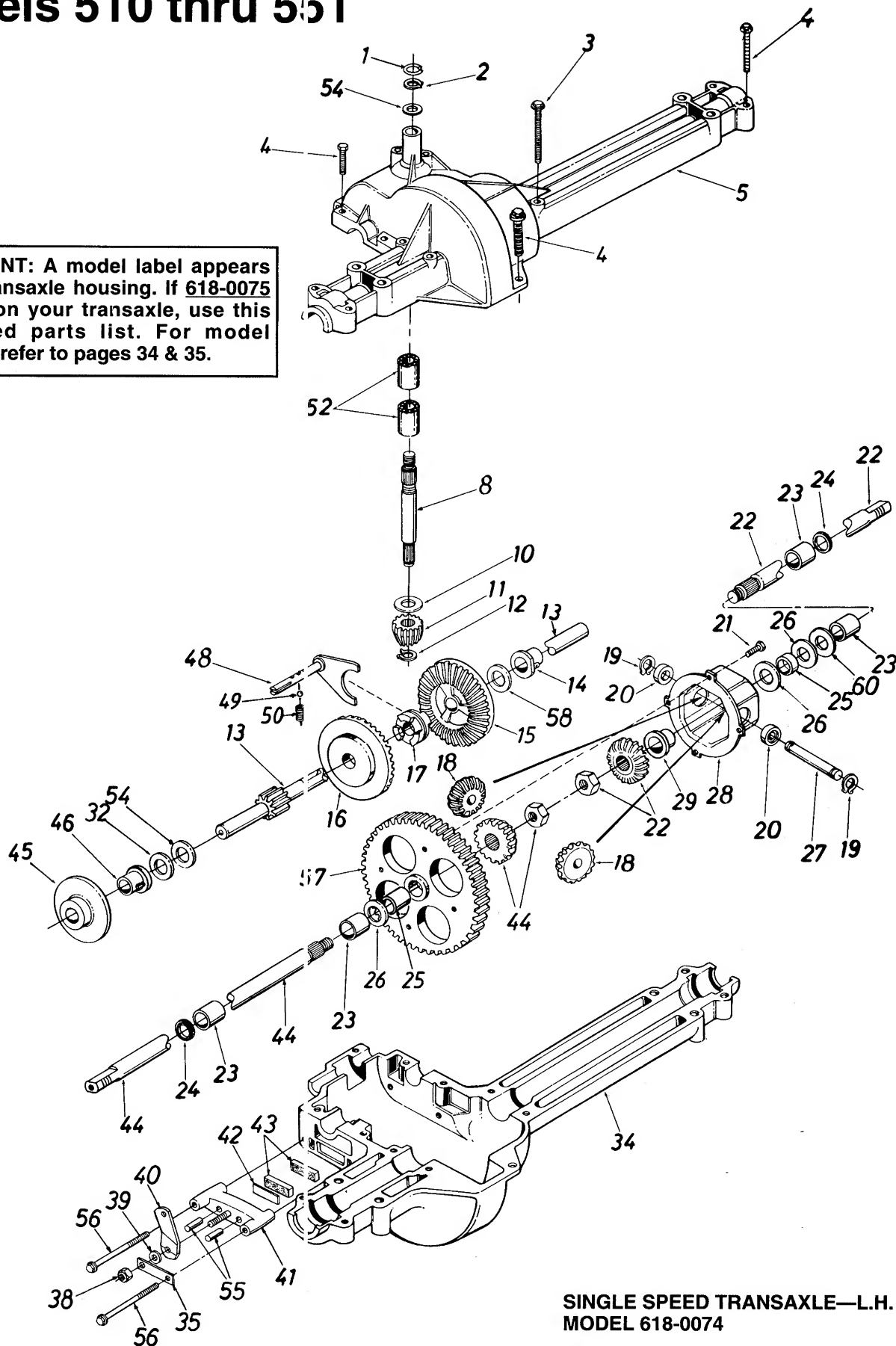


PARTS LIST FOR MODELS 510 THRU 551 RIDING MOWERS WITH 32" OR 38" DECKS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	15568A	N	Blade Engagement Lever Ass'y.	38	736-0119		L-Wash 5/16" I.D.
2	15644A		Deck Drive Control Brkt. Ass'y.	39	736-0140		Fl-Wash. .385 I.D. x .62
3	16397		Deck Index Bracket	40	736-0156		Fl-Wash. .635 I.D. x 1.12
4	15613A		Pivot Bar Brkt.	41	736-0160		Fl-Wash. .531 I.D. x .930
5	17108		Deck Lift Brkt. Ass'y.	42	736-0169		L-Wash. 3/8" I.D.*
6	17109		Deck Lift Handle Retainer Ass'y.	43	736-0300		Fl-Wash. .385 I.D. x .87 O.D.
7	17111		Deck Lift Brkt. Ass'y.	44	736-0232		Spring Washer .530 I.D.
8	17112		Deck Lift Bracket	45	738-0183		Shld. Bolt .500" Dia. x .215"
9	17114A		Deck Lift Float Brkt Ass'y.	46	738-0347		Shld. Spacer .625" I.D.
10	17115		Deck Lift Pivot Brkt.	47	738-0550		Rear Hgt. Adj. Shaft
12	17123		Stabilizer Shaft Ass'y.	48	747-0557		Connecting Rod
13	710-0118		Hex Bolt 5/16-18 x .75" Lg.	49	747-0651		Deck Lift Handle
15	710-0253		Hex Bolt 3/8-16 x 1" Lg.	50	747-0690		J-Bolt 5.4" Lg.
17	710-3243	N	Hex TT-Tap Scr. #12-24 x .5" Lg.	51	750-0515		Spacer .511 I.D.
19	710-0817		Hex Wash.-Tap Scr. 5/16-18 x 1.25" Lg.	52	750-0707		Spacer .885 I.D.
20	711-0198		Ferrule	53	736-0264		Fl-Wash. 5/16" I.D.*
21	711-0753		Clevis Pin (Special)	54	732-0531		Ext. Spring 22.05" Lg.
22	712-0267		Hex Nut 5/16-18 Thd.*	56	732-0575		Ext. Spring—15-5/8" (32" Deck)
28	714-0507		Cotter Pin 3/32" Dia.		732-0587		Ext. Spring—17-3/4" (38" Deck)
29	712-0287		Hex Nut 1/4-20 Thd.	57	17310		Spring Anchor
30	712-0798		Hex Nut 3/8-16 Thd.	58	710-0776		Hex Wash. Hd. AB-Tap Scr. 1/4 x .62" Lg.
31	714-0101		Internal Cot. Pin 1/2" Dia.	59	710-0102		Hex Bolt 1/4-20 x 2.5" Lg.
32	714-0145		Int. Cot. Pins 3/8" Dia.	60	736-0176		Fl-Wash. .25" I.D. x .93" O.D.
33	715-0114A		Spring Pin Spir. 1/4" Dia.	61	750-0583		Spacer .255" I.D.
34	720-0223		Grip	62	712-0291		Hex L-Nut 1/4-20 Thd.
35	732-0711		Compression Spring .9" Lg.	63	712-0291		Hex L-Nut 1/4-20 Thd.
36	732-0435		Switch Actuator	64	710-0106		Hex Bolt 1/4-20 x 1.25" Lg.
37	732-0565		Ext. Spring 5.86" Lg.				

Models 510 thru 551

IMPORTANT: A model label appears on the transaxle housing. If 618-0075 appears on your transaxle, use this illustrated parts list. For model 618-0026, refer to pages 34 & 35.



**SINGLE SPEED TRANSAXLE—L.H.
MODEL 618-0074**

Models 510 thru 551

PARTS LIST FOR SINGLE SPEED TRANSAXLE LEFT HAND 618-0074

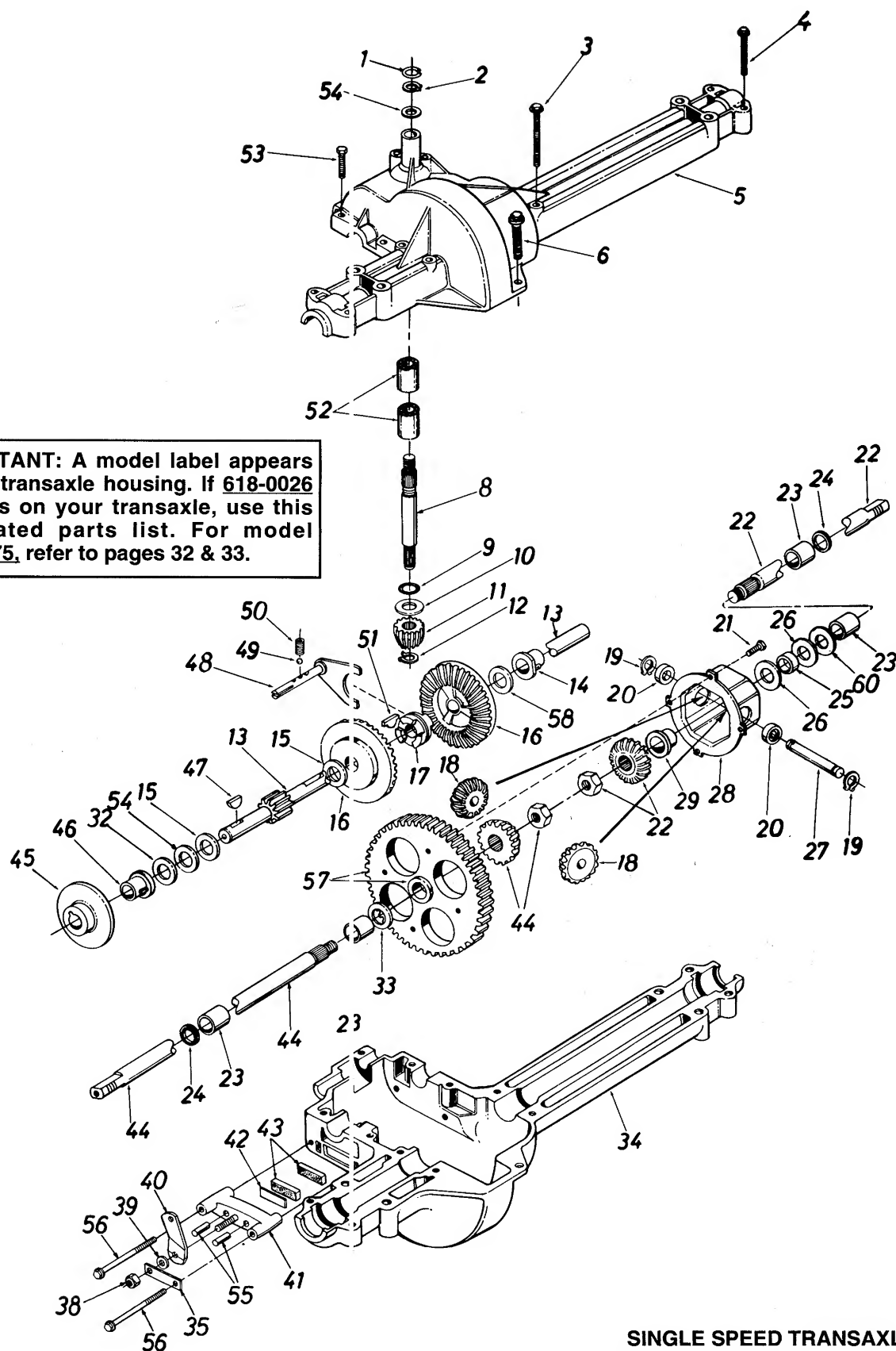
REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	732-0614		Wire Ring	33	736-0445		Fl-Wash. .760" I.D. x 1.5" O.D.
2	716-0171		Retaining—Ring	34	719-0313	N	Lower Housing
3	710-0854		Hex Bolt 1/4-20 x 1.75" Lg.*	35	718-0150		Anti-Rotation Brkt.
4	710-0809		Hex Tap Scr. 1/4-20 x 1.25" Lg.	38	712-0273		Hex Nut 5/16-24 Thd.
5	719-0314	N	Upper Housing	39	736-0371		Fl-Wash. .344" I.D. x .875" O.D.
8	711-0861		Input Shaft	40	717-0772A	N	Actuating Arm
10	736-0335		Thrust Washer 5/8" I.D. x 1.25" O.D.	41	761-0198		Brake Yoke
11	717-0633		Pinion Input 14T	42	717-0682		Puck Plate
12	716-0171		Retaining Ring	43	717-0678		Brake Puck
13	711-0942	N	Drive Shaft—L.H. Brake	44	717-0765		Axle L.H. Ass'y.
14	741-0336		Flange Brg. 5/8" I.D. x 3/4" Lg.*	45	761-0202	N	Brake Disc
15	717-1362	N	Bevel Gear 42T—Small I.D.	46	741-0337		Flange Bearing 5/8" I.D. x 15/16" Lg.
16	717-1363	N	Bevel Gear 42T—Large I.D.	48	611-0011	N	Shift Fork Ass'y.
17	718-0228		Clutch Collar	49	741-0862		Ball Detent .250" Dia.
18	717-1020		Miter Gear 15T (H.D.)	50	732-0863		Spring Detent
19	716-0184		Snap Ring	51	714-0169		#9 Hi-Pro Key 3/16" x 3/4" Dia. HT
20	741-0589		Thrust Bearing	52	741-0335		Needle Brg. 5/8" I.D. x 1/2" Lg.
21	710-0862A		Pan Head Scr. 1/4-20 x .50" Lg. w/Patch	54	736-0349		Fl-Wash. 5/8" I.D. x 1" O.D. x .020 Thk.
22	717-0766		Axle R.H. Ass'y.	55	741-0343		Actuating Pin 5/16" Dia.
23	741-0340		Sleeve Bearing 3/4" I.D. x 1.0" Lg.	56	710-1206		Hex Wash Hd. Self-Tap Scr. 1/4-20 Thd.
24	721-0179		Oil Seal 3/4" I.D.	57	717-1364	N	Differential Gear 58T
25	750-0767		Axle Spacer	58	736-0349		Fl-Wash. 5/8" I.D. x 1" O.D. x .020 Thk.
26	736-0445		Fl-Wash. .760" I.D. x 1.5" O.D.		736-0495		Thrust Wash. 5/8" I.D. x 1" O.D. x .025" Thk.
27	711-0918		Cross Shaft				Washer (See Below)
28	717-1252		Differential Can Ass'y.				Grease—Shell (15 oz.)
29	—		Part of Ref. 28	60	**		
32	**		Washer (See Below)	—	737-0148		

**Ref. No. 32 736-0495 Thrust Wash. 5/8" I.D. x 1" O.D. x .025" Thk.
 736-0336 Fl-Wash. 5/8" I.D. x 1" O.D. x .030" Thk.
 736-0494 Thrust Wash. 5/8" I.D. x 1" O.D. x .035" Thk.
 736-0337 Fl-Wash. 5/8" I.D. x 1" O.D. x .040" Thk.

**Ref. No. 60 736-0492 Fl-Wash. .76" I.D. x 1.5" O.D. x .010" Thk.
 736-0493 Fl-Wash. .76" I.D. x 1.5" O.D. x .020" Thk.
 736-0351 Fl-Wash. .76" I.D. x 1.5" O.D. x .030" Thk.
 736-0445 Fl-Wash. .76" I.D. x 1.5" O.D. x .060" Thk.

Models 510 thru 551

IMPORTANT: A model label appears on the transaxle housing. If 618-0026 appears on your transaxle, use this illustrated parts list. For model 618-0075, refer to pages 32 & 33.



**SINGLE SPEED TRANSAXLE—L.H.
MODEL 618-0025**

Models 510 thru 551

PARTS LIST FOR SINGLE SPEED TRANSAXLE LEFT HAND 618-0025

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	732-0614		Wire Ring	34	719-0303		Lower Housing
2	716-0108		Retaining—Ring	35	718-0150		Anti-Rotation Brkt.†
3	710-0854		Hex Bolt 1/4-20 x 1.75" Lg.*	38	712-0273		Hex Nut 5/16-24 Thd.†
4	710-0809		Hex Tap Scr. 1/4-20 x 1.25" Lg.	39	736-0371		Fl-Wash. .344" I.D. x .875" O.D.†
5	717-0764A		Upper Housing	40	717-0772A	N	Actuating Arm†
6	710-0642		Hex TT-Tap Scr. 1/4-20 x .75" Lg.	41	761-0198		Brake Yoke†
8	711-0861		Input Shaft	42	717-0682		Puck Plate†
9	721-0178		Square Seal 5/8" I.D.	43	717-0678		Brake Puck†
10	736-0335		Thrust Washer 5/8" I.D. x 1.25" O.D.	44	717-0765		Axle L.H. Ass'y.
11	717-0633		Pinion Input 14T	45	717-0677		Brake Disc†
12	716-0171		Retaining Ring	46	741-0337		Flange Bearing 5/8" I.D. x 15/16" Lg.
13	717-0768		Drive Shaft	47	714-0161		Woodruff Key 3/16 x 5/8 HT
14	741-0336		Flange Brg. 5/8" I.D. x 3/4" Lg.*	48	717-0754		Shift Fork Ass'y.
15	736-0335		Fl-Wash. 5/8" I.D. x 1.25"	49	741-0862		Ball Detent .250" Dia.
16	717-0757		Bevel Gear 42T	50	732-0863		Spring Detent
17	717-0667		Clutch Collar	51	714-0169		#9 Hi-Pro Key 3/16" x 3/4" Dia. HT
18	717-1020		Miter Gear 15T (H.D.)	52	741-0335		Needle Brg. 5/8" I.D. x 1 1/2" Lg.
19	716-0184		Snap Ring	53	710-0855		Hex Bolt 1/4-20 x 1.00" Lg.
20	741-0589		Thrust Bearing	54	736-0349		Fl-Wash. 5/8" I.D. x 1" O.D. x .020 Thk.
21	710-0862A		Pan Head Scr. 1/4-20 x .50" Lg. w/Patch	55	741-0343		Actuating Pin 5/16" Dia.†
22	717-0766		Axle R.H. Ass'y.	56	710-1206		Hex Wash Hd. Self-Tap Scr. 1/4-20 Thd.†
23	741-0340		Sleeve Bearing 3/4" I.D. x 1.0" Lg.	57	717-0767		Differential Gear 72T Ass'y. w/Bearing
24	721-0179		Oil Seal 3/4" I.D.	58	736-0349		Fl-Wash. 5/8" I.D. x 1" O.D. x .020 Thk.
25	750-0827		Axle Spacer		736-0495		Thrust Wash. 5/8" I.D. x 1" O.D. x .025" Thk.
26	736-0445		Fl-Wash. .760" I.D. x 1.5" O.D.				Washer (See Below)
27	711-0918		Cross Shaft				Grease—Shell (15 oz.)
28	717-1252		Differential Can Ass'y.				
29	—		Part of Ref. 28	60	**		
32	**		Washer (See Below)	—	737-0148		
33	736-0445		Fl-Wash. .760" I.D. x 1.5" O.D.				

**Ref. No. 32 736-0495 Thrust Wash. 5/8" I.D. x 1" O.D. x .025" Thk.
736-0336 Fl-Wash. 5/8" I.D. x 1" O.D. x .030" Thk.
736-0494 Thrust Wash. 5/8" I.D. x 1" O.D. x .035" Thk.
736-0337 Fl-Wash. 5/8" I.D. x 1" O.D. x .040" Thk.

**Ref. No. 60 736-0492 Fl-Wash. .76" I.D. x 1.5" O.D. x .010" Thk.
736-0493 Fl-Wash. .76" I.D. x 1.5" O.D. x .020" Thk.
736-0351 Fl-Wash. .76" I.D. x 1.5" O.D. x .030" Thk.
736-0445 Fl-Wash. .76" I.D. x 1.5" O.D. x .060" Thk.

†Not Part of Transaxle Complete.

FOR REPLACEMENT PARTS, CONTACT:
SERVICE DEPARTMENT • P.O. BOX 360900 • CLEVELAND, OHIO 44136